

BEFORE THE
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 9

IN THE MATTER OF :

BAKERSFIELD CRUDE TERMINAL LLC
PLAINS MARKETING, L.P.
PLAINS ALL AMERICAN, INC.

§
§
§
§
§
§
§

DOCKET NO. R9-15-08

PLAINS' RESPONSE TO "FINDING AND NOTICE OF VIOLATION"

TABLE OF CONTENTS

	<u>Page</u>
I. EPA’S NOTICE OF VIOLATION ALLEGES DEFICIENCIES IN SUPERSEDED PERMITS.	1
II. THE BAKERSFIELD CRUDE TERMINAL IS A “MINOR SOURCE.”.....	2
A. THE PERMITS’ LIMITS ON ANNUAL EMISSIONS ARE LEGALLY AND PRACTICALLY ENFORCEABLE.....	3
1. The Permits Limit Not Just Annual Emissions from the Storage Tanks, but Limit as well the Parameters that Determine their Annual Emissions.....	3
2. The Permits and Other Federally Enforceable Rules Require Measurement and Recording of the Parameters that Determine Emissions.....	4
3. Plains Undertakes the Measurements and Keeps the Records from which Emissions may be Determined.....	5
a. Plains receives only uniform unit trains loaded from a single source, which is tested before shipment.....	6
b. Plains also tests each unit train upon receipt at the Terminal.....	6
4. Measurements and Records to date Show that the Tanks’ Emissions are Substantially Below the Major Source Threshold.	7
5. Claims about Bakken Crude Shipments are Red Herrings.....	7
B. THE PERMITS NEED NOT HAVE BUT DID INCLUDE CONSIDERATION OF ROOF LANDING EMISSIONS.	7
1. The District’s SIP-approved Rules Allow Emissions Associated with Periodic Unplanned Maintenance, such as a Roof Landing, to be Excluded from Permitting Consideration.....	8
2. All Tank Emptying and Degassing will be Accompanied with Vapor Controls.....	8
3. The Permits as Written Require all Storage Tank VOC Losses to be Included in Determining Compliance with the 18,920 pound/year Allowable Rate.	9
C. THE EQUIPMENT AUTHORIZED IN THE 2014 PERMIT WAS NOT REQUIRED TO BE INCLUDED IN DETERMINING PTE, BUT ITS INCLUSION WOULD NOT HAVE MADE THE TERMINAL A MAJOR SOURCE.....	9
1. BCT Voluntarily Installed the Sumps and Separator as a Means of Enhancing Water Quality Protections.....	10
2. The District Properly Excluded the Oil Water Separator and Oil Management Sumps as too Insignificant to Count toward PTE.	10

3.	Even if the OWS and Sumps had been Included, the PTE would not Exceed Major Source Thresholds.....	12
a.	The District included fugitive emissions from a source category for which such emissions are not required to be considered.....	12
b.	Properly excluding fugitive emissions, even the authorization of the additional emissions in 2014 would not have rendered the Terminal a Major Source.....	13
III.	EPA HAS NO BASIS OR RIGHT TO SECOND-GUESS THE DISTRICT'S BACT DETERMINATION.....	14
IV.	PLAINS HAS TIMELY APPLIED FOR ITS PERMIT TO OPERATE, WHICH PROVIDES AN OPPORTUNITY FOR EPA TO PROVIDE COMMENTS ON THE ENFORCEABILITY OF ITS TERMS.....	15

TABLE OF AUTHORITIES

Page

Cases

<i>Alabama Power Co. v. Costle</i> , 636 F.2d 323 (D.C. Cir. 1979).....	11
<i>Alaska Dept. of Env. Cons. v. EPA</i> , 540 U.S. 461 (2004)	15
<i>Committee For a Better Arvin v. EPA</i> , No. 11-73924 (9th Cir. slip op. issued May 20, 2015)	11
<i>U.S. v. AM General Corp.</i> , 808 F. Supp. 1353 (N.D. Ind. 1992)	1
<i>U.S. v. B W Inv. Properties</i> , 38 F.3d 362 (7th Cir. 1994)	1
<i>U.S. v. Chevron U.S.A., Inc.</i> , 380 F. Supp. 2d 1104 (N.D. Cal. 2005)	2
<i>U.S. v. Pan American Grain Mfg. Co. Inc.</i> , 29 F. Supp. 2d 53 (D. Puerto Rico 1998)	1
<i>United States v. Louisiana-Pacific Corp.</i> , 682 F. Supp. 1122 (D. Col. 1987).....	1
<i>Util. Air Regulatory Grp. v. EPA</i> , 134 S. Ct. 2427 (2014)	11

Statutes

40 C.F.R. § 51.165(a)(1)(iii)	5
40 C.F.R. § 52.220(b)(260)(i)(B)	8
40 C.F.R. § 60.116b(c)	5
40 C.F.R. § 60.4(d)(2)(vii).....	5
40 C.F.R. § 70.2(2)(xxii).....	12
40 C.F.R. § 70.2(2)(xxvii).....	13
49 C.F.R. § 173.120	4
52 Fed. Reg. 11,420 (Apr. 8, 1987)	13
CAA Section 111(a)(1).....	15
CAA Section 113	2, 15
CAA Section 113(a).....	1, 2
CAA Section 113(a)(1).....	2
CAA Section 113(b)(1)(B)	1, 2
CAA Section 165(a)(1).....	15
CAA Section 165(a)(4).....	15
CAA Section 167	15
CAA Section 182(e).....	11
CAA Section 302(j)	12

Rules

SJVAPCD Rule 2010, § 4.1.....	16
SJVAPCD Rule 2020, § 7.3.....	8
SJVAPCD Rule 2201, § 3.19.....	14
SJVAPCD Rule 2201, § 3.24.21	12
SJVAPCD Rule 2201, § 3.27.....	5
SJVAPCD Rule 4623	8
SJVAPCD Rule 4623, § 3.7.....	8
SJVAPCD Rule 4623, § 5.43.....	9
SJVAPCD Rule 4623, § 53.1.3	9

Other Authorities

EPA Publication AP-42 (Nov. 2006)	3, 5
San Joaquin Valley Air Pollution Control District Authority to Construct Application Review, Application Nos. S-8165-1-1, ‘-2-0, & ‘-3-0, July 25, 2012.....	3
San Joaquin Valley Air Pollution Control District Authority to Construct Application Review, Application Nos. S-8165-9-0, ‘-10-0, ‘-11-0, ‘-12-0 & ‘-13-0, Sept. 23, 2014.....	10
TCEQ Chemical Sources Current Best Available Control Technology (BACT) Guidance Requirements (Aug. 1, 2011).....	14

INDEX OF EXHIBITS

- Exhibit A May 17, 2015 Letter from Annette Ballatore-Williamson (San Joaquin Valley Air Pollution Control District counsel) to Allan Zabel (EPA Region 9 counsel)
- Exhibit B Authorities to Construct Nos. S-8165-1-1, S-8165-2-1 & S-8165-3-1
- Exhibit C *San Joaquin Valley Air Pollution Control District Authority to Construct Application Review*, Application Nos. S-8165-1-1, ‘-2-0, & ‘-3-0, July 25, 2012
- Exhibit D Example of Unit Train Shipping Report
- Exhibit E Example of Bakersfield Terminal Crude Oil Sampling Report
- Exhibit F *San Joaquin Valley Air Pollution Control District Authority to Construct Application Review*, Application Nos. S-8165-9-0, ‘-10-0, ‘-11-0, ‘-12-0 & ‘-13-0, Sept. 23, 2014
- Exhibit G EPA Title V Application Form
- Exhibit H Federal Railroad Administration Inspection Report

PLAINS' RESPONSE TO "FINDING AND NOTICE OF VIOLATION"

Bakersfield Crude Terminal LLC, Plains Marketing, L.P., and Plains All American, Inc. (collectively, "Plains") urge EPA to withdraw the "Finding and Notice of Violation" ("NOV") issued on April 30, 2015. Premised on errors of fact and law and incomplete information, the NOV alleges numerous defects in the permits issued for the Bakersfield Crude Terminal ("BCT" or "Terminal") by the San Joaquin Valley Air Pollution Control District ("SJVAPCD" or "District"). Notably, the NOV does not allege that Plains is violating any terms of those permits, which contain strict limits on emissions. The additional information provided with this Response, along with the District's letter of May 17, 2015 (copy provided as Ex. A), show that EPA cannot sustain any enforcement action.

I. EPA'S NOTICE OF VIOLATION ALLEGES DEFICIENCIES IN SUPERSEDED PERMITS.

The NOV is premised on alleged deficiencies in Authority to Construct ("ATC") Nos. S-8165-1-0, S-8165-2-0, and S-8165-3-0 as issued by SJVAPCD to Bakersfield Crude Terminal, LLC in July 2012. *See* NOV ¶¶ 25, 27, & 29. But as a result of Plains' later acquisition of the project, those ATCs were superseded by ATCs issued in July 2013, whose very first condition states that they "shall cancel and replace ATC S-8165-[1,2, & 3]-0." *See* ATC Nos. S-8165-1-1, S-8165-2-1 & S-8165-3-1 ("2013 ATCs")(copy provided as Ex. B). Consequently, EPA has provided notice of violations based on alleged deficiencies in the wrong permits.

Plains remains hopeful that any of EPA's remaining concerns can be resolved with refinements to language in BCT's pending Permits to Operate. Regardless, any legal action that follows from the pending NOV would be dismissed out of hand under Sections 113(a) and (b)(1)(B) of the federal Clean Air Act. Because of these provisions, "EPA is 'empowered to bring ... a civil suit only on the basis of the specific violation alleged in the NOV.'" *U.S. v. Pan American Grain Mfg. Co. Inc.*, 29 F. Supp. 2d 53 (D. Puerto Rico 1998) (citations omitted) (dismissing claims based on lack of specificity in NOV); *see also U.S. v. AM General Corp.*, 808 F. Supp. 1353, 1362 (N.D. Ind. 1992) ("The requirement is jurisdictional; the EPA is empowered to bring such a civil suit only on the basis of the specific violation alleged in the NOV and only where that specific violation alleged in the NOV continued for thirty days."); *United States v. Louisiana-Pacific Corp.*, 682 F. Supp. 1122, 1128 (D. Col. 1987) ("[T]o allow the EPA to notify the alleged offender of one violation, and then bring a civil action on the basis [of] another violation ... would completely frustrate the notice requirement created by Congress."); *U.S. v. B W Inv. Properties*, 38 F.3d 362, 366 (7th Cir. 1994) ("the notice of

violation requirement for state implementation plans serves a different function than simply alerting the violator. Section 113(a)(1) requires 30-day notification of both the violator and the state, allowing the state to act to enforce its own implementation plan before the EPA steps in.”¹

EPA may not initiate any action under Section 113 until at least 30 days after correcting its procedural error with a new notice. Plains nonetheless responds here to the NOV as issued on April 30, in the hope and expectation that Region 9 will conclude that there is no point to issuing another notice; rather, EPA should constructively participate in the District’s formulation of the permits to operate, which remain pending, to identify any clarifying permit terms that would further reinforce the minor source status of the Terminal.

II. THE BAKERSFIELD CRUDE TERMINAL IS A “MINOR SOURCE.”

At bottom, the NOV concludes that the BCT is a major source built and now operated without undergoing requisite “major source” review because the permits issued by SJVAPCD do not sufficiently restrict VOC emissions below the 20,000 lb/year major source threshold. This conclusion rests on three misunderstandings:

- That the permits’ limits on tank throughputs are insufficiently enforceable to delimit the Terminal’s “potential to emit” (“PTE”) (NOV ¶¶ 44 and 45);
- that the determination of PTE needed to but did not include an estimation of emissions associated with tank roof landings (NOV ¶¶ 46 and 47); and
- that emissions from an oil-water separator and oil drainage sumps should have been included in the District’s determination of PTE, which would have caused the PTE to exceed the major source threshold (NOV ¶¶ 48 and 49).

We deconstruct these misunderstandings in order.

¹ The District Court’s decision in *U.S. v. Chevron U.S.A., Inc.*, 380 F. Supp. 2d 1104 (N.D. Cal. 2005), is either distinguishable or in error. In that case, no party objected to the sufficiency of the notice under Section 113(a), the beneficiaries of which are the defendant and the State. Rather, various environmental organizations participating as amicus curiae objected to the absence of notice as a means of precluding entry of a consent decree to which they objected. The court rejected the amici’s objections because the defendant and State had received actual notice of the actual violations that were to be resolved by the decree, holding that the form of notice was not dispositive of its adequacy under Section 113(a)(1). *Id.* at 1109 (“Section [113] is silent with respect to the form the notice must take. . . . Therefore, the Court agrees that “[r]ather than formal written notice, actual notice of violations is sufficient.”) (citations omitted). The case cannot stand for the proposition that EPA may proceed on the basis of notice, whether formal or actual, of the *wrong* violations; otherwise, the case would render Sections 113(a) and (b)(1)(B) devoid of any meaning.

A. THE PERMITS' LIMITS ON ANNUAL EMISSIONS ARE LEGALLY AND PRACTICALLY ENFORCEABLE.

The overwhelming majority of the Terminal's estimated emissions (18,920 lb/year) are attributable to the two 150,000-barrel storage tanks. Those emission estimates were generated by the EPA-approved process model, "TANKS," which applies *EPA Publication AP-42* emission factors to annual throughput volumes and liquid volatility to estimate emissions for tanks of the design proposed by the applicant. *See San Joaquin Valley Air Pollution Control District Authority to Construct Application Review*, Application Nos. S-8165-1-1, '-2-0, & '-3-0, July 25, 2012, at pp. 3-4 (copy provided as Ex. C).

Consistent with standard air permitting practice, Plains' predecessor maximized its assumed liquid throughputs and volatilities in order to maximize business opportunities and market flexibility: As EPA well knows, many air permits are issued with allowable emissions just below the applicable major source thresholds for just that purpose, even though there may be little chance of needing the full allowance. Such is the case with the BCT, which is running far below permitted capacity.² Had there been any need to do so at the time of application, BCT could have removed some conservatism from the permits (*e.g.*, reduced the assumed throughputs or average volatilities).

Plains of course understands that the annual limit on the tanks' emissions must be "legally and practically enforceable by a state or local air pollution control agency," *cf.* NOV ¶ 17, especially if the annual allowable is close to an applicable major source threshold. That is why SJVAPCD imposed as conditions in the ATCs the obligation to monitor and record the parameters that determine emissions.

1. The Permits Limit Not Just Annual Emissions from the Storage Tanks, but Limit as well the Parameters that Determine their Annual Emissions.

The 2013 ATCs (Ex. B) do not just limit total VOC emissions from the tanks to 18,920 lb/year (Condition 6): They separately limit the total throughput on both a daily (Condition 4) and annual basis (Condition 5) to the levels assumed for calculating potential emissions. Similarly, the ATCs preclude accepting any load with a volatility (measured as RVP) above 11 psia, the maximum assumed for purposes of setting the daily allowable emissions rate (Condition 7). Although the

² Records of monthly throughputs and liquid volatilities are discussed below, in connection with an explanation of the adequacy of the records kept pursuant to the permits' conditions. Those records establish that the BCT handled only 502,307 barrels of petroleum liquids in 2014 and 952,567 barrels through April 30, 2015, very substantially below the permits' limit of 25,550,000 bbls/year.

permits do not preclude accepting any individual shipment with a vapor pressure above the annual average volatility assumed for calculating annual emissions (8.3 psia)—an annual average necessarily contemplates loads below and loads above that average—the permits require a direct determination of annual emissions should Plains take even a single load above the acceptable annual average (Condition 8). As discussed below, it has, in both calendar years in which it has operated.

In the event that Plains does not accept any such >8.3 psia shipments in a given year, such that Condition 8 would not require an annual emissions calculation, the absence of emission calculations would be irrelevant to maintaining PTE below 18,920 lb limit: By running only lower-volatility liquids below the independently imposed and verified throughput limits of Condition 5, the tanks cannot exceed that annual emissions limit. Even so, as explained below, BCT routinely monitors and records the volatility of each shipment received.

2. The Permits and Other Federally Enforceable Rules Require Measurement and Recording of the Parameters that Determine Emissions.

EPA makes a fundamental error in the following finding:

29. The 2012 ATCs do not require any testing of the RVP of the crude oil processed at the Facility to determine if the RVP of the crude oil processed by BCT is less than 11.0 psia or which could be used by BCT to show that the average annual RVP of crude oil processed at the Facility was no greater than 8.3 psia and therefore complied with the limits on VOC emissions contained in the 2012 ATCs.

The obligation to test RVP is implicit in the RVP limits in the ATCs: RVP of the crude oil transited at the BCT must be known in order to be screened, as required by Conditions 7 and 8 and as understood by the District.³ More importantly, the requirement to determine the vapor pressure (and volumes) of all storage tank throughput is made explicit in Subpart Kb (the new source performance standards for storage tanks built after 1984):

³ Other conditions of the permit confirm the District's expectation that RVP measurements would be available for all shipments. For example, Condition 35 requires the RVP of the tanks' contents, among other information, to be reported for each roof landing, an obligation that could not be satisfied if the RVP weren't being tracked. Similarly, Condition 36 requires annual emissions to be calculated using the TANKS program if BCT accepts any load with an RVP above 8.3 psia. This obligation, too, could not be met if Plains weren't constantly tracking the volatility of all receipts. Classification testing of the crude prior to transport also is required by Department of Transportation rules. *See generally* 49 C.F.R. § 173.120. Indeed, as explained below, tracking of shipments is an inevitable commercial reality.

(c) ... the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m³ [~1260 bbl] storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa [~0.5 psia] ... shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.

40 C.F.R. § 60.116b(c).⁴ This obligation is no less enforceable because it is in an applicable NSPS, rather than in the language of the permits. *See* 40 C.F.R. § 60.4(d)(2)(vii) (delegating NSPS enforcement authority to San Joaquin Valley Air Pollution Control District, including Subpart Kb).⁵ Because the obligation to measure and document both the throughput and volatility of all loads moved through the Terminal is enforceable both by EPA and SJVAPCD, EPA has no claim that the tanks' PTE is insufficiently constrained. *See* 40 C.F.R. § 51.165(a)(1)(iii) ("restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design only if the limitation or the effect it would have on emissions is federally enforceable."); *see also* SJVAPCD Rule 2201, § 3.27 (functionally identical provision approved in State implementation plan).

3. **Plains Undertakes the Measurements and Keeps the Records from which Emissions may be Determined.**

Because EPA attacks the adequacy of the permits, not Plains' compliance with them, EPA's claim with regard to the tanks' PTE is to put to rest with the foregoing demonstration of a legally and practically enforceable limit of 18,920 lb/year. Still it may be reassuring for EPA to see that Plains is complying with the permits' terms, in the process confirming their legal and practical enforceability. In fact, Plains goes beyond what the law requires to track the throughputs and volatilities of the liquids it unloads, both as shipped to BCT and as received and unloaded.

⁴ The expression of this requirement as true vapor pressure instead of as Reid vapor pressure is of no consequence, because EPA Publication AP-42 (Nov. 2006), at Table 7.1-13a, has a standardized and EPA-accepted conversion scale specifically for crude oils. That table may be accessed on p. 7.1-54 at this link: <http://www.epa.gov/ttn/chief/ap42/ch07/final/c07s01.pdf>

⁵ In fact, SJVAPCD acknowledged this rule in its evaluation of the application, and specifically noted it as a proposed permit condition in its ATC Application Review. *See* Ex. C, at pp. 18-20. Although the ATCs as issued inadvertently did not include a specific recitation of the requirements of § 60.116b(c), that rule nonetheless is enforceable against Plains and compels the maintenance of the specified records, which obligation SJVAPCD understood and relied upon in its determination that the BCT is a minor source.

a. **Plains receives only uniform unit trains loaded from a single source, which is tested before shipment.**

The Bakersfield Crude Terminal was built and intended to receive only unit trains dispatched from singular shippers dispensing from a single source of blended crude.⁶ The shipper provides Plains with a laboratory-certified and signed report on the contents of the unit train, per specified ASTM/API standards, which suffices for commercial and all other purposes to characterize that shipment. An example of the unit train shipping report is provided as Exhibit D. Because the product is uniform, the identical product specifications are included on the bills of lading that accompany each car.

b. **Plains also tests each unit train upon receipt at the Terminal.**

Although characteristics of each shipment are known when the train leaves the shippers' custody, Plains also tests each train as it is unloaded at the BCT, at least in part to satisfy its obligations under Subpart Kb:

- All of the crude oil is unloaded by delivery into a singular manifold before entering the tank;
- the crude oil passes through offloading meters on the manifold;
- a sample pot takes "pulses" and extracts crude oil from this stream continuously throughout the unloading so as to ensure that the sample is representative of the entire unit train;
- per each unit train, the pulses/meter extracts approximately 1.5 gallons of oil in the sample, of which 1 gallon is sent to SGS (Plains' 3P contractor) and 0.5 gallon is maintained by Plains; and finally,
- this cross-sectional sample is sent to SGS or other contractor for comprehensive analysis of many crude oil qualities, including but not limited to vapor pressure.

An example of the report prepared for each load by Plains' Bakersfield testing contractor, SGS, is included as Exhibit E.

⁶ EPA may be confusing BCT's unit train operation with manifest train operations, the latter of which involves a train comprised of tank cars with varying contents from a variety of sources. On rare occasions, the BCT does receive single cars, the exceptions that prove the rule: This occurs when a car is orphaned from a unit train by mechanical or other difficulty. All such cars are accompanied with their own bill of lading.

4. Measurements and Records to date Show that the Tanks' Emissions are Substantially Below the Major Source Threshold.

The vapor pressure and throughput volume data gathered by BCT forms the basis for monthly calculations of storage tank emissions prepared using the TANKS program, as directed by Conditions 8 of the 2013 ATC's. Unsurprisingly given the conservatism in the vapor pressure and throughput assumptions made in the permit applications, actual emissions are far below permitted levels:

Month	Avg RVP	Throughput (BBLs)	Estimated VOC Loss, lb/month	Cumulative 12-month loss (lbs)
Dec-2014	4.41	384,055	138.4	138.4
Jan-2015	5.92	502,037	189.6	328
Feb-2015	4.46	292,335	115.6	443.6
Mar-2015	3.45	158,195	68.7	512.3
Apr -2015	3.28	0	25.1	537.4

5. Claims about Bakken Crude Shipments are Red Herrings.

Reflecting public misinformation concerning the Terminal, the NOV avers that “the Facility is allowed to receive crude oil from the Bakken formation.” NOV ¶ 40. It proceeds to include further findings purporting to establish that the RVP of Bakken crude is above 11 psia, *see* NOV ¶¶ 41-42, with the implication being that BCT understated the actual RVP of the crude it will be receiving. NOV ¶ 43. In fact the ATCs do not describe or allow any particular sourcing of petroleum, and the NOV identifies no such condition; instead, the ATCs unequivocally prohibit any single load with an RVP above 11 psia. And so to the extent that EPA is correct about the volatility of Bakken crude, the permit would *prohibit* its receipt. Indeed, the BCT is not designed or intended for high volatility crude oils.

B. THE PERMITS NEED NOT HAVE BUT DID INCLUDE CONSIDERATION OF ROOF LANDING EMISSIONS.

The NOV's second “finding of law” is that the District should have but failed to include additional VOC emissions associated with tank roof landings in the PTE limit of 18,920 lb/year (NOV ¶ 46). This finding is wrong in both respects: The District in fact need not have accounted for any such emissions in the 18,920 lb/year limit, but did so anyway.

1. **The District’s SIP-approved Rules Allow Emissions Associated with Periodic Unplanned Maintenance, such as a Roof Landing, to be Excluded from Permitting Consideration.**

The NOV avers that “[a]s set forth in the 2012 ATC for the storage tanks at the Facility and as experienced in the petroleum industry, internal floating roofs are regularly emptied to the point that the floating roof touches down on its support legs.” NOV ¶ 46. EPA evidently is under the mistaken impression that the BCT plans to drain each tank with each shipment, as might happen with a custom terminal-for-hire. As should now be clear, the Bakersfield Crude Terminal is for consistent loads of crude oil only, with no need or plan to empty either tank except in the rare instance it needs to be drained for inspection or repair. Because the storage tanks will contain a single type of liquid (crude oil), roof landings will occur very infrequently, only as needed for maintenance of the tank. Further, as elaborated below, any such landing events will be accompanied with vapor controls.

The District long ago adopted and EPA has approved Section 7.3 of District Rule 2020, which excludes from permitting any “repairs or maintenance not involving structural changes to any emissions unit for which a permit has been granted.” *See* 40 C.F.R. § 52.220(b)(260)(i)(B). This exclusion precisely describes the only circumstances under which the BCT tank roofs would be landed.⁷

2. **All Tank Emptying and Degassing will be Accompanied with Vapor Controls.**

In accordance with SJVAPCD requirements expressed in Rule 4623, on the rare occasions on which the roofs will be landed to empty the tanks for inspection and repair, they will be degassed. *See* SJVAPCD Rule 4623, § 3.7 (defining “degassing” as “the process of removing organic vapors from a storage tank”). Under that rule, (1) the District is provided notice, (2) the operator must have in place a vapor destruction unit demonstrated to be at least 95% efficient. This means that landing losses will be extremely small.

⁷ At the May 18, 2015, meeting, it was suggested that the exclusion for maintenance-related emissions somehow affected only the obligation to obtain a permit for such emissions, not its consideration in calculating PTE, presumably such that maintenance-related additions to PTE could trigger major source reviews even though the maintenance emissions themselves did not. This view is revolutionary in two senses: It is both circular and never before vindicated in any case in the 40-year history of Clean Air Act permitting programs.

3. **The Permits as Written Require all Storage Tank VOC Losses to be Included in Determining Compliance with the 18,920 pound/year Allowable Rate.**

Although small and very infrequent, emissions associated with any episodic roof landings still will be calculated, not only because the permits require the SJVAPCD to be notified in advance of such events but also because the 2013 ATCs (at Condition 34) require detailed records of information from which emission associated with the landings may be calculated

Permittee shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Sections 53.1.3 and 5.43. The records shall include information on the true vapor pressure (IVP), API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land an its legs, and the lowest liquid level in the tank. [District Rule 4623].

The overall limit in Condition 4 applies to all emissions, including those associated with roof landings. Accordingly, even though the PTE could have been calculated and limited without including roof landing losses, the ATCs offer no such exclusion. Based on the requirements of Condition 34, appropriate governmental authorities may confirm that total calculated emissions, including those from any periodic roof landings, remain below the 18,920 lb/year limit.⁸

C. **THE EQUIPMENT AUTHORIZED IN THE 2014 PERMIT WAS NOT REQUIRED TO BE INCLUDED IN DETERMINING PTE, BUT ITS INCLUSION WOULD NOT HAVE MADE THE TERMINAL A MAJOR SOURCE.**

EPA's third basis for finding the PTE in excess of major source thresholds is its "finding of law" that emissions from an oil-water separator and four small sump tanks should have been included in the District's determination of PTE, which would have caused the PTE to exceed the major source threshold. *See* NOV ¶ 48 and 49. In fact, the District applied long-standing, published policy well known to EPA in order to determine that the trivial contribution from those incidental operations would not have affected the District's decision to authorize the Terminal as a minor source.

⁸ The annualized emissions calculations discussed above would have included any contribution from roof landings, had any occurred since the Terminal began operations in late 2014. None has.

1. **BCT Voluntarily Installed the Sumps and Separator as a Means of Enhancing Water Quality Protections.**

Before discussing the adequacy of the District's consideration of the oil-water separator and the four small sump tanks in the air permitting process, it may be helpful for EPA to understand the functions of this equipment. As originally designed and permitted, all stormwater at the Terminal would have diverted directly to the stormwater retention pond. Also, BCT's original facility design made no special provision for a system to capture oil drained from piping, etc. during maintenance; rather, all such draining would occur into portable open containers. Upon acquisition of the project, Plains decided instead to install a small (2000 gal.) carbon-controlled oil-water separator, in order to remove entrained oil before discharging stormwater into the retention pond. Plains also decided to add an oil management system comprised of four small (24 bbl. capacity) dedicated sumps with carbon canister vapor controls into which crude oil could be drained, rather than simply allowing drainage into open containers on a catch-as-catch-can basis. Neither the separator nor sumps were required by law or necessary for a functioning terminal; rather, Plains simply decided they would be a better and more environmentally protective means of managing stormwater and oil drains.

2. **The District Properly Excluded the Oil Water Separator and Oil Management Sumps as too Insignificant to Count toward PTE.**

Because of the small volumes and high degree of control involved with these five vessels, each was conservatively calculated to emit no more than 0.3 lb/day (509 lb/yr combined), a tiny fraction of the major source threshold of 20,000 lb/year.⁹ In accordance with longstanding District policy by which new units with potential emissions of less than 0.54 lb/day are not included in major source determination calculations, the District rightly concluded that these proposed new tanks did not trigger major source permitting requirements. *See San Joaquin Valley Air Pollution Control District Authority to Construct Application Review*, Application Nos. S-8165-9-0, '-10-0, '-11-0, '-12-0 & '-13-0, Sept. 23, 2014, at p. 5 (copy provided as Ex. F).

EPA avers that this "exclusion of these VOC emissions from PTE calculations is nether [sic] approved under the SIP nor legitimate under the Act....[R]ounding down per day emissions to eliminate these emissions from annual PTE is not an acceptable practice." NOV ¶ 48. But the

⁹ Even this 509 lb/year no doubt was an overestimate of VOC emissions. BCT assumed, for example, that the separator would always have an oil layer; in fact, it has as yet seen no oil, and rarely will. BCT also assumed that the separator and sumps would always be full of the highest volatility oil allowed to be received under the permit (11 psia), when it never accept any load that high and is prohibited from having an annual average volatility above 8.3 psia.

NOV is silent with regard to any authority for these claims, which echo quite hollow in light of EPA's unquestioned awareness of this policy for a great many years.¹⁰

The District's EPA-approved rule establishes the relevant major source threshold as exceeding 20,000 pounds, not 20,000.0 pounds; in other words, the threshold is expressed to one significant figure. This expression is consistent with the federal Clean Air Act from which it derives, which sets the major source threshold for so-called "extreme" nonattainment areas at 10 tons/year (20,000 lbs/year), not 10.0000 tons/year. *See* CAA Section 182(e). Having established that threshold in accordance with the Act, the District, as the agency that adopted and implements it, is in the best position to confirm its application and intended precision.

Few of the emission factors applied to estimate any individual source's PTE are accurate to 0.5 lb/day (less than 200 lb/yr) anyway, so it's perfectly reasonable not to include de minimis, functionally undetectable emissions such as those attributed to the sumps and separator. Nothing about the approved rule says how granular the PTE estimate has to be, or forecloses the State's use of good engineering judgment in calculating or expressing PTE, or excluding additions to PTE below rounding margins.

This is a standard EPA practice, as well. For one example, EPA's own Title V application form (copy provided as Ex. G) advises the applicant to express its facility's proposed PTE to the nearest tenth of a ton (200 lb/yr) or sometimes (for fee purposes) to the nearest ton. Presumably, EPA does not take the position it is without legal authority to so interpret the statutory thresholds applicable to its permitting decisions.

Indeed, EPA has since the dawn of the Clean Air Act asserted the inherent authority to exclude de minimis changes from major source permitting, which exclusions may be upheld if "the Agency ...follow[s] a rational approach to determine what level of emission is a de minimis amount." *See Alabama Power Co. v. Costle*, 636 F.2d 323, 405 (D.C. Cir. 1979); *see also Util. Air Regulatory Grp. v. EPA*, 134 S. Ct. 2427, 2449 (2014) (citing *Alabama Power* to affirm, in the context of EPA rules governing PSD thresholds for greenhouse gas emissions, the continuing relevance of "de minimis non curat lex" to Clean Air Act permit program applicability thresholds); *Committee For a Better Arvin v. EPA*, No. 11-73924 (9th Cir. slip op. issued May 20, 2015), at pp. 15-16 (concluding that Clean Air Act allows EPA to ignore "trifling emission control measures" when evaluating state implementation plan submitted for San Joaquin Valley). The District has applied a rational

¹⁰ The District has amply documented EPA's acceptance of this policy over the years. *See* Ex. A.

approach, and documented its reasoning in APR1130, to establish its de minimis exclusion from changes that may trigger major source permitting requirements, and EPA has long acquiesced in that exclusion. EPA does not and cannot deny that the District properly applied that exclusion by its own terms in this case.

3. Even if the OWS and Sumps had been Included, the PTE would not Exceed Major Source Thresholds.

Even if the District had—contrary to its own policy—included emissions from the separator and sumps, still the Terminal’s PTE would not exceed 20,000 lbs/year: This is because the District’s calculations of PTE should not have included but did include fugitive emissions. Properly excluding fugitive emissions, the Terminal’s PTE calculates to 19,429 lb/year even including the emissions attributed to the equipment added in 2014.

a. The District included fugitive emissions from a source category for which such emissions are not required to be considered.

In the NOV, EPA takes the position that the 509 lb/year combined estimate for the five new small vessels should have been added to the PTE previously calculated for the Terminal, and that “[i]nclusion of the additional VOC emissions from the five additional units in the 2014 ATC would result in an annual PTE of 20,000 pounds or more per year of VOC.” NOV ¶ 49.¹¹ But this is true only (1) if the 509 lb/year needed to be included at all, a proposition disabused in the previous section of the Response, *and* (2) if the calculations also retain the 1072 lb/year attributed to fugitive leaks and drips from the loading rack, a proposition we disabuse here:

As the District has acknowledged, SJVAPCD should not have included *any* fugitive emissions from the loading rack in determining the Terminal’s PTE. *See* Ex. A, at p. 3. “For determining major source status, fugitives shall only be included for calculating the air pollutant post-project emissions or SSPE2 if the source is included in the list of source categories identified in the major source definition in 40 C.F.R Part 70.2.” SJVAPCD Rule 2201, § 3.24.21. That list, drawn from Section 302(j) of the Clean Air Act and EPA’s own “major source” definition rule at 40 C.F.R. § 70.2(2)(xxii), includes any “petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels,” which necessarily excludes any petroleum storage and transfer facility—such as BCT—with a permitted storage capacity of 300,000 barrels or less.

¹¹ Although this isn’t elaborated, it appears that EPA assumes the following calculation: 18,920 lb/year from storage tanks + 1072 lb/year of fugitive emissions attributed to the unloading rack + 509 lb/year from small vessels = 20,501 lb/year.

At the May 18, 2015, meeting, it was suggested that terminals with a capacity of equal to or less than 300,000 barrels still could be deemed a categorical source notwithstanding Section 302(j)'s listing only of larger terminals, but EPA's representatives did not explain how this could be squared with the rule's (and statute's) actual language or rudimentary application of *expressio unius est exclusio alterius* to its interpretation. Nor has Plains been provided with any prior EPA interpretation supporting this reading.

It also was suggested that the catch-all categorical source, "[a]ny other stationary source category, which as of August 7, 1980 is being regulated under section 111 or 112 of the Act" (at 40 C.F.R. § 70.2(2)(xxvii)), provides an alternative means of capturing the fugitive emission sources at the BCT. This suggestion suffers three independently fatal flaws: (1) It fails the obvious *expressio unius* test by looking past Congress' (and EPA's and SJVAPCD's) description of the petroleum storage facilities for which fugitives should be counted (those greater than 300,000 barrels in capacity); (2) it would render meaningless most of the rest of the specifically listed source categories, many of which also were subject to pre-1980 NSPS; and (3) the very source category that EPA seeks to include in the BCT's quantification of PTE—unloading operations at petroleum terminals—are *not* among the source categories covered by a pre-1980 NSPS anyway, so this road would lead EPA nowhere: Subpart Kb just covers tanks, not the loading or unloading equipment to which the District attributes BCT'S fugitive emissions.¹²

b. Properly excluding fugitive emissions, even the authorization of the additional emissions in 2014 would not have rendered the Terminal a Major Source.

The ATCs limit VOC emissions from the two storage tanks to 18,920 lb/yr and the sumps and separator to a total of 509 lb/year. Accordingly, excluding all fugitive emissions as directed by applicable rule, the Terminal's entire PTE is 19,429 pound/yr, which is below the major source threshold.¹³ Accordingly, even assuming it were within EPA's purview to second-guess the

¹² A review of the preamble to Subpart Kb's adoption in 1987 includes no mention of counting or regulating fugitive emissions from equipment used to convey liquids into or out of storage tanks as part of the identified "affected facility." See 52 Fed. Reg. 11,420 (Apr. 8, 1987). The District's May 17, 2015, letter (Ex. A) documents prior EPA interpretations confirming that fugitive emissions only from specifically listed affected facilities (e.g., storage tanks) are to be counted.

¹³ During the initial permitting, the District distinguished between emissions calculated from standard factors for leaking components (617 lb/year) and those from evaporation of drips of volatile organic liquids from unloading hose "disconnects" (455 lb/year). See Ex. C, at p. 5. As the District later acknowledged (in its letter to Region 9), the exclusion applies as equally to drip evaporation as assumed component leaks. See

District's longstanding and rational policy of excluding de minimis additions such as the separator and sumps, EPA could not establish a PTE above the major source threshold.

III. EPA HAS NO BASIS OR RIGHT TO SECOND-GUESS THE DISTRICT'S BACT DETERMINATION.

Although not central to its principal claims, the NOV also avers that "BACT has not been installed on all emission units at the facility." NOV ¶ 52. The NOV does not provide any further explanation for this "conclusion of law," except a conclusory finding of fact concerning the existence of geodesic domes on external floating roof ("EFR") storage tanks elsewhere in the United States (NOV ¶ 31). The mere existence of EFR tanks does not mean that they represent BACT for crude oil storage. As experienced permitting professionals, the District properly considered at least the following:

- Whether the roof is internal to a fixed roof tank or "external" on a domed tank, both achieve equivalent emission control by keeping an impermeable layer at the liquid-vapor interface. Whether to choose one design or another therefore is dictated by circumstances other than vapor control. For example, geodesic domes are used to retrofit external roof tanks, not used on new internal floating roof ("IFR") tanks.
- If EFRs were BACT, there would be no IFR tanks allowed to be built anywhere, yet EPA's RACT/BACT/LEAR Clearinghouse is replete with IFR tanks selected as BACT.
- BACT controls for fixed roof tanks of the type proposed by BCT consist of equipping the tank with an IFR meeting the design requirements specified in the SJVAPCD BACT guidance, which is consistent with other published BACT determinations throughout the Nation, which generally do not draw a distinction between external floating roof tanks with domed lids and internal floating roof tanks.¹⁴

SJVAPCD Rule 2201, § 3.19 (fugitive emissions defined as "emissions which could not reasonably pass through a stack, chimney, vent or other functionally equivalent opening").

¹⁴ Volatile organic liquid storage is a ubiquitous source category, of a type for which it is extremely common for SIP-approved permitting authorities to determine BACT by guidance rather than case-by-case. *See, e.g.*, TCEQ Chemical Sources Current Best Available Control Technology (BACT) Guidance Requirements (Aug. 1, 2011), available at the following link: https://www.tceq.texas.gov/assets/public/permitting/air/Guidance/NewSourceReview/bact/bact_tanks.pdf.

- Relatedly, EPA has not offered any examples of a proposed new IFR tank rejected by a permitting authority as BACT in favor of some other design, whereas there are innumerable permits issued for fixed roof tanks with an IFR.
- The District's BACT determination also is consistent with EPA's NSPS for storage tanks, which represents EPA's own determination of the best system of emission reduction. *See* CAA § 111(a)(1). Notably, EPA has never suggested in the entire history Subparts K, Ka or Kb that EFR is BSER; rather, EPA has published design specifications for each type of tank unique to that type of tank.

In any event, neither the District nor Plains needs to defend the controls imposed on the BCT by virtue of the straightforward application of published BACT guidance to the tanks proposed by BCT. Based on the guidance undergirding the District's BACT determination, and given that the Terminal has been in operation for over a year, EPA would have no basis to use the enforcement process to second-guess the District's actions at this juncture and on this record. *Cf. Alaska Dept. of Env. Cons. v. EPA*, 540 U.S. 461 (2004) (EPA may find a BACT determination deficient only if it is not based on a reasoned analysis, and may bring enforcement case seeking to invalidate a BACT determination promptly, not "months, even years, after a permit has been issued"). *Alaska DEC* was premised on a bare majority's holding that EPA could use Section 113 and 167 authority to vindicate the Section 165(a)(1) &(4) prohibition against building a major source without a permit preceded with a proper BACT determination. Given that the Terminal is not a major source, EPA may not rely on *Alaska DEC* as authority to proceed, even assuming counterfactually that EPA otherwise had timely expressed legitimate concerns about the District's BACT determination for this minor source.

IV. PLAINS HAS TIMELY APPLIED FOR ITS PERMIT TO OPERATE, WHICH PROVIDES AN OPPORTUNITY FOR EPA TO PROVIDE COMMENTS ON THE ENFORCEABILITY OF ITS TERMS.

EPA also finds as a matter of law that the BCT must have a Permit to Operate that includes requirements applicable to major sources, and that BCT is operating without one. *See* NOV ¶¶ 51 & 54. Under SJVAPCD rules, however, all that is required is a notice of commencement of operation, which "serve[s] as a temporary Permit to Operate for the source operation until the Permit to

The age of the guidance is of no import, as the District would update the guidance were there any developments that would change its BACT expectations. Note, for example, that the TCEQ BACT guidelines referenced above, last updated in 2011, also continue to prescribe internal floating roofs as BACT for the storage of volatile organic liquids.

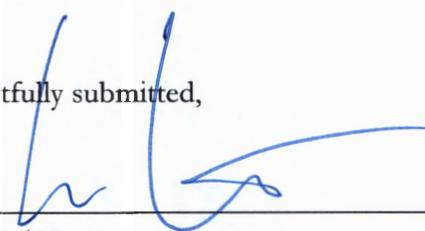
Operate is granted or denied.” SJVAPCD Rule 2010, § 4.1. It is during the inspection process that follows this notice that the District is able to confirm that the source has been constructed as represented in the applications, and to process the permits to operate.

Such is the process followed with the Bakersfield Crude Terminal. Plains filed the requisite notification on November 26, 2014, and the District conducted its inspection on February 3, 2015.¹⁵ Now SJVAPCD is in the process of preparing the permits to operate.

This process provides EPA with a convenient means of commenting on the conditions of operation in such a way as to ameliorate any remaining EPA concerns with the enforceability of the Terminal’s potential to emit. For avoidance of doubt, Plains will further consider clarifying conditions in its pending permits to operate, but without conceding any error in the permits that effect the Terminal’s status as a minor source, past, present or future.

Dated: June 16, 2015

Respectfully submitted,



Eric Groten
VINSON & ELKINS LLP
The Terrace 7
2801 Via Fortuna, Suite 100
Austin, TX 78746-7568
Ph: 512.542.8709
Fax: 512.542.8612
E-mail: egroten@velaw.com

Michael B. Wigmore
VINSON & ELKINS LLP
2200 Pennsylvania Ave. NW, Suite 500W
Washington, DC 20037-1701
Ph: 202.639.6778
Fax: 202.330.5328
E-mail: mwigmore@velaw.com

¹⁵ The Terminal also was inspected by the Federal Railroad Administration on December 3, 2014, which described the Terminal as “state of the art,” in large part because of its tank car unloading vapor managements systems (Ex. H).

Steven H. Goldberg
Robert P. Soran
DOWNEY BRAND LLP
621 Capitol Mall, 18th Floor
Sacramento, CA 95814
sgoldberg@downeybrand.com
rsoran@downeyabrand.com
(916) 444-1000

Attorneys for BAKERSFIELD CRUDE TERMINAL LLC,
PLAINS MARKETING, L.P., AND PLAINS ALL
AMERICAN, INC.

A



May 17, 2015

Via Email: zabel.allan@epa.gov

Allan Zabel
Office of Regional Counsel (ORC-2)
U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94104

Re: *In the Matter of Bakersfield Crude Terminal, LLC, et. al., Finding and Notice of Violation, Docket No. R9-15-08*

Dear Mr. Zabel:

This office serves as the civil legal advisor for the San Joaquin Valley Unified Air Pollution Control District ("District"). We have received and reviewed the Finding and Notice of Violation issued April 30, 2015 to Bakersfield Crude Terminal, LLC, and related entities (hereinafter referred to as the "Facility"). For the foregoing reasons, based upon the allegations raised in the NOV and the issues discussed in my prior telephone conversations with you as we understand them, the District disagrees with EPA's findings that the Facility is in violation of the California state implementation plan ("SIP") or of the District's own rules and regulations as adopted into the District's portion of the California SIP, and urges EPA to withdraw the NOV.

The District Properly Authorized The Facility To Construct As A Minor Stationary Source

The main underlying premise of the NOV appears to be that but for permit conditions which limit the Facility's operational capacity, the Facility would have a PTE that exceeds the District's major source threshold of 20,000 lbs/year. According to EPA, however, the ATC's which were issued on July 31, 2012 do not include conditions which are sufficient to enforce the operational limitations imposed by the District.

As EPA recognizes, the District calculated the PTE for the facility to be 19,992 lbs/year of VOC. This amount was calculated assuming an average annual crude oil Reid vapor pressure of 8.3 psia and a throughput of 12,775,500 bbl/year. The total throughput of both tanks is limited to 25,550,000 bbl/year. Additionally, the maximum RVP is limited to 11 psia and the maximum daily throughput is limited to 91,623 bbl/day. Applying these assumptions amounted to per-tank annual emissions of 9,460 lb-VOC/year, or 18,920 lbs/year total.

Seyed Sadredin

Executive Director/Air Pollution Control Officer

Northern Region

4800 Enterprise Way
Modesto, CA 95358-8718

Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)

1990 E. Gettysburg Avenue
Fresno, CA 93726-0244

Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region

34946 Flyover Court
Bakersfield, CA 93308-9725

Tel: 861-392-5500 FAX: 861-392-5585

The fugitive VOC emissions from the unloading operation were estimated at 455 lbs/year of residual liquid lost in disconnecting the loading rack equipment from the railcars, as well as 617 lbs/year from the components of the loading rack.

Both at the time these emissions were calculated, and with the benefit of the Facility's first start-up inspection conducted in February 2015, it appears that the District employed conservative assumptions. For example, while the Facility expected most crude oil loads to have an RVP below 8 psia, and almost never about 9, it agreed to accept the limiting condition that the annual average not exceed 8.3 psia, and District rules preclude the Facility from receiving crude oil with an RVP of 11.0 psia or above. The PTE was properly calculated with an average RVP of 8.3 psia and a combined tank throughput of 25,550,000 bbl/year.

The District's February 3, 2015 start-up inspection demonstrated that the Facility is operating well below its permitted limits. The daily throughput records, *attached*, reveal that only one of the two tanks is currently in operation, and that since the Facility commenced operations in late 2014, the highest monthly average of daily throughput occurred in December 2014 and January 2015 of 16,195 bbl/day, respectively. The highest daily throughput occurred on January 28, 2015 in the amount of 42,820 bbl, which is only one-quarter of their daily throughput limit. Obviously, the Facility has not come anywhere close to their daily permitted throughput limit of 91,623 bbl/day per tank.

The February 2015 start-up inspection also demonstrated that the Facility was well within compliance of the RVP limits. The RVP for crude oil received in December 2014 ranged from 2.18 psia to 8.55 psia, with an average of 5.28 psia. In January 2015 and February 2015, the RVP ranged from 2.0 psia to 9.8 psia, with an average of 4.45 psia.

Thus, from a permitting perspective, the ATCs prohibit the Facility from operating as a major source, and from an actual, operating perspective, the Facility is not, in fact, emitting pollution as a major source.

From both the NOV and my prior conversations with you, EPA seems to believe that the Facility expected to receive Bakken crude oil, and that the ATCs authorize the Facility to receive Bakken crude. (See NOV, ¶40.) From this, EPA appears to question the veracity of the District's PTE calculation, as the NOV references reports that Bakken crude oil has an RVP range of between 5.0 psia to 15.0 psia, with an average RVP of 11.5 psia and a seasonal high average of 12.5 psia. (NOV, ¶¶41-43.)

From the District's perspective, however, no restrictions are placed on the source of crude oil that would be received by the Facility, provided that its RVP not exceed 11.0 psia. Rather, the District's application review is based upon those facts that are necessary to determine compliance with District rules. The origin of crude oil is not a relevant fact in determining compliance with District rules. Furthermore, in reviewing the Facility's application, no commitment was made to receive crude oil from any particular source. Finally, and most significantly, regardless of the source of oil, District rules and the ATCs prohibit the Facility from receiving oil from *any* source with an RVP equal to or greater than 11.0 psia. (See ATCs 1-1 and 2-1, Condition 7.)

It is important to note that EPA is missing the fact that NSPS Subpart Kb requires the Facility to perform testing and monitoring for both volume and volatility on a daily basis. Thus, EPA's position that the ATCs were built upon the notion that testing is not required is wrong. Moreover, for any shipment with an RVP greater than 8.3 psia, the Facility is required to demonstrate the annual combined emissions for the tanks "by calculating and maintaining an annual emissions summary using the EPA's TANKS program" and to maintain daily and annual records of, *inter alia*, tank emissions of oil shipments with an RVP greater than 8.3 psia. (*ATCs 1-1 and 2-1, Conditions 8, 36.*)

It may be that EPA contends that different testing, recordkeeping or inspection requirements would improve the enforceability of the ATCs. Notably, the District has not converted the ATCs to operating permits yet. District policy dictates that it review the conditions prior to converting to a Permit to Operate to ensure that they are adequate for enforcement. Regardless of the permit conditions, EPA's "finding" that the Facility is a "major source" under federal law is plainly incorrect.

Fugitive Emissions

Of the 19,992 lb.-VOC/year that the District calculated for the Facility in relation to the ATCs, a total of 1,072 lb. of VOC per year (455 lb/year from unloading disconnect losses and 617 lb/year from components handling the crude oil) consist of fugitive emissions from the unloading terminal authorized by ATC 3-0. The District contends that these fugitive emissions are excluded for purposes of determining whether the Facility is a major stationary source, pursuant to 40 C.F.R. § 51.165(a)(1)(iv)(C).

Based upon our conversation, it appears that EPA contends that exception number 27 of § 51.165(a)(1)(iv)(C) applies – "Any other stationary source category which, as of August 7, 1980, is being regulated under section 111 or 112 of the Act." Section 111 of the Clean Air Act authorizes EPA to set New Source Performance Standards ("NSPS"). EPA contends that NSPS Subpart Ka, "Standards of Performance for Storage Vessels for Petroleum Liquids for which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984," was in effect on August 7, 1980. This NSPS was replaced after July 23, 1984 with NSPS Subpart Kb, which would apply to the 150,000 bbl internal floating roof tanks authorized by ATCs 1-0 and 2-0.

Of course, exception number 22, addressed to "petroleum and storage transfer units with a total storage capacity exceeding 300,000 barrels," identifies the specific source category at issue here. It lacks credibility that the regulation would exclude fugitive emissions from a specifically identified source category that failed to exceed the 300,000 barrel threshold, only to then require their inclusion by a more general exception that would otherwise apply to that same source category. Based upon EPA's logic, there is simply no need for exception number 22 if exception number 27 applies.

Furthermore, we would like to draw your attention to the fact that the 1072 lb.-VOC/year of fugitive emissions calculated by the District are not associated with the tanks reflected by ATCs 1-0 and 2-0, but from the components of the loading rack during unloading operations authorized by ATC 3-0. According to an EPA guidance letter of March 6, 2003 from Cheryl L.

Newton, Acting Director of Air and Radiation Division, fugitive emissions from emissions units at unlisted stationary source categories *are not* included in determining whether the source is a major stationary source, although emissions units at that source which *do* fall within a listed source category would be included as part of exception number 27 of § 51.165(a)(1)(iv)(C). (See <http://www.epa.gov/region07/air/nsr/nsrmemos/20030306.pdf>, p. 3, *Example No. 2.*) In this case, the Facility operates principally as a railcar unloading and crude oil transfer terminal – a stationary source category which *is not* a listed category in Part 60, Subchapter C, Chapter I, Title 40 of the Code of Federal Regulations. Thus, the fugitive emissions associated with the unloading operations are not included in determining whether the Facility is a major stationary source.

Put more simply, while it appears the petroleum storage tanks were regulated emissions units as per NSPS Subparts Ka and Kb, there are no fugitive emissions associated with these emissions units. Rather, the fugitive emissions are associated with the liquid transfer operation at the unloading rack, which is not a listed source category that was regulated as of August 7, 1980. Accordingly, exception number 27 of § 51.165(a)(1)(iv)(C) does not apply, and therefore the fugitive emissions are not counted towards determining whether the Facility is a major stationary source. Thus, of the total 19,992 lbs.-VOC/yr PTE emissions calculated by the District, 1,072 lbs. are excluded for purposes of determining whether the Facility is a major stationary source, leaving a total of 18,920 lb.-VOC/yr that are considered for purposes of major source status – below the 20,000 lb. threshold.

BACT

In performing the engineering analysis, the District concluded that BACT was required for the two large internal floating roof tanks, and that BACT guidance existed in the form of Guideline 7.3.3 to indicate that 95% control was both achieved in practice and technologically feasible. The controls for the tanks consist of equipping each tank with a metal shoe primary seal and wiper secondary seal and a fixed roof to minimize at least 95% of emissions from the tanks. (See *Attached Application Review, Appendix B.*)

EPA asserts that geodesic domes were required BACT technology for the storage tanks, and that the tanks at the Facility are not enclosed by such geodesic domes. (*NOV*, ¶31.)

However, EPA publication AP42 Chapter 7.1 – Organic Liquid Storage Tanks (see <http://www.epa.gov/ttn/chief/ap42/ch07/final/c07s01.pdf>), at section 7.1.1.4 explains that domed external floating roof tanks are typically the result of retrofitting an existing external floating roof tanks with a fixed roof. In the Facility's case, the tanks are not existing external floating roof tanks that have been retrofitted, but rather are newly-constructed internal floating roof tanks ("IFRT").

This EPA publication goes on to explain that a domed external floating roof tank is very similar to an IFRT. Regarding domed external floating roof tanks, this sections states that "In the event that the floating deck is replaced with the lighter IFRT-type deck, the tank would then be considered an internal floating roof tank."

In addition, the District has performed sample emission calculations for a domed external floating roof tank with the same capacity, throughput, vapor pressure, and using reasonable assumptions for other Tanks 4 inputs. These calculations have confirmed the District's position that an IFRT and a geodesic dome tank are virtually identical in terms of emissions. There is no practical difference in the level of emissions control from a domed external roof tank and an IFRT, and the District is unaware of any information to suggest that a "geodesic dome" is somehow BACT as compared to an IFRT. To the contrary, an IFRT, with both a permanent fixed roof and a floating roof, is functionally identical to a "geodesic domed" tank.

Roof Landing Emissions

The NOV also raises a concern that the PTE calculations in the 2012 Application Review did not include "roof landing losses." (NOV ¶26.)

Because the storage tanks will contain a single type of liquid, roof landing is expected to occur very infrequently, and certainly not regularly, simply for maintenance of the tank and during unforeseen operational problems. Section 7.3 of District Rule 2020 – Exemptions, provides an exemption from permits and, by extension, from New Source review, for "repairs or maintenance not involving structural changes to any emissions unit for which a permit has been granted." Rule 2020 was originally adopted on September 17, 1998 and approved into the California SIP at 40 C.F.R. § 52.220. All subsequent amendments have been approved into the SIP ever since. (See 79 Fed.Reg. 55,637 (Sept. 17, 2014.)) This exemption would apply to any emissions from irregular maintenance or repair activities such as roof landing losses.

Furthermore, the existing emission limit in the ATCs includes all emissions associated with operation of the tanks. Therefore, tank roof landings that are not permit exempt, if any, would be required to be included in the annual emissions calculations and remain below the annual emissions limit on the permit.

Finally, it should also be recognized that District Rule 4623 requires that the District be notified at least five working days in advance of any roof landing, and requires record keeping sufficient to calculate emissions from the landing event. These requirements are incorporated as Conditions 9 and 35 in ATCs 1-0 and 2-0. In addition, there are several other conditions to ensure that the internal floating roofs remain in good working order at all times. (See Conditions 10-35.)

District Policy For Implementing Rule 2201

The NOV alleges that VOC emissions with respect to the 2014 project for four sump tanks and an oil/water separator were improperly excluded from the Facility's PTE pursuant to District policy APR 1130, which provides that new emissions units with emissions of 0.54 pounds per day or less are rounded down to zero, and that if these cumulative emissions were included, it would have caused the Facility to exceed the 20,000 lb.-VOC/year major source thresholds. (NOV ¶ 48-50.)

It should be noted that APR 1130 is a long-standing policy that has been in effect with the District for decades. The version of the policy at issue in this matter was adopted in April

2009, and is attached as *Exhibit L* to the *Declaration of David Warner* which I provided to you previously. I had explained to you that our District has worked with EPA on many projects in the past in which this policy was applied. You indicated in our telephone conversation that EPA's permit engineer, Gerardo Rios, acknowledged seeing the policy before, but had never seen it applied before to NSR.

EPA's acquiescence in the District's application of this policy to NSR projects, however, is long-standing. First, the policy would *only* apply to projects being reviewed for NSR purposes, and has been applied to a number of projects which were reviewed by EPA without comment, including the following:

Facility	ATC	Project #	Equipment	Pollutant	EPA Comment?
Ball Metal Food Container	N-2253-23-0	1120248	Emergency ICE	VOC	No comment. Via telephone call
California Dairies	S-1346-28-0	1144271	Emergency ICE	NOx	Project listed on EPA's "No Comment" spreadsheet
JR Simplot	N-767-88-0	1142428	Emergency ICE	NOx	EPA email stated "No Comment"
Dart Container	N-257-7-0	1110917	Flexographic Printer	VOC	Project listed on EPA's "No Comment" spreadsheet
Saputo Cheese	S-1203-25-0	1144334	Emergency ICE	NOx	Project listed on EPA's "No Comment" spreadsheet

The above examples are just a few of the hundreds of projects in which District policy APR 1130 was applied with EPA's implicit approval. This policy derives from the practical reality that there is really no reliable method for accurately estimating such small quantities of emissions of 0.5 lbs/day or less for a particular emissions unit. Accordingly, the policy was adopted as a common sense provision based upon the recognition that the calculations for such small emissions increases are inherently unquantifiable with any degree of accuracy. And indeed, the February start-up inspection demonstrates the impracticality of considering the emissions from the 4 sump tanks and oil water separator, as emission from the outlet of the carbon canisters resulted in readings of zero or nearly zero ppmv VOC.

Finally, it should be recognized that the sump tanks and oil-water separator are not only insignificant emission sources, but are also ancillary and unnecessary to the operation of the transfer operations and the associated tanks. Perhaps EPA does not understand the operation of these tanks. They are designed to catch storm water. To the extent that the storm water also contains some oily product from various sources (such as the minor unavoidable leaks from disconnects at the transfer points), these oils are captured by the tanks as well. The maximum possible emissions from these oils are accounted for in the calculations associated with the tanks. Note that these *SAME* emissions are accounted for as fugitive emissions associated with the transfer operations. There was no reason to try to avoid double counting of these emissions, since the sump tank emissions were so small that the District found them to be insignificant.

EPA is unlikely to find another air permitting agency in the nation, including EPA, which would consider these units subject to permitting requirements. We not only subjected them to permit, but the facility equipped them with the best VOC control equipment available for such tiny emitters.

Conclusion

Based upon the foregoing, the District strongly contends that the Notice of Violation to the Facility was arbitrarily issued by EPA without a full investigation and based upon inaccurate assumptions. Frankly, the District is disappointed and surprised by the manner in which EPA approached this situation, and hope it is not a sign of how similar situations will be conducted in the future. In every single prior case that the District is aware of, EPA has contacted the District prior to issuing NOV's. The District looks forward to addressing these issues with you at our meeting on Monday, May 18, 2015, as well as any other issues or concerns which may require further discussion. Given that EPA has now had the benefit of considering information from the District, we urge EPA to withdraw the NOV.

Sincerely,

ANNETTE A. BALLATORE-WILLIAMSON
District Counsel

By:



Annette A. Ballatore-Williamson

AABW: es
Enclosures

B



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT



APR 18 2013

Glen Mears
Bakersfield Crude Terminal, LLC
P O Box 4648
Houston, TX 77210-4648

Re: Notice of Issuance of Authority To Construct
Facility Number: S-8165
Project Number: S-1130908

Dear Mr. Mears:

The Air Pollution Control Officer has issued the Authority To Construct to Bakersfield Crude Terminal, LLC to re-issue the facility ATCs under new ownership.

Enclosed are the Authority To Construct and invoice for the engineering evaluation fees pursuant to District Rule 3010. Please remit the amount owed, along with a copy of the attached invoice, before the due date.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Robert P Gilles at (559) 230-5804.

Sincerely,

David Warner
Director of Permit Services



Jim Swaney, P.E.
Permit Services Manager

DW: rpg
Enclosures

Seyed Sadredin
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: 661-392-5500 FAX: 661-392-5585



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

Due Date
6/17/2013

Amount Due
\$ 323.40

Amount Enclosed

ATCFEE S1130908
8165 S106836 4/18/2013

RETURN THIS TOP PORTION ONLY, WITH REMITTANCE TO:

BAKERSFIELD CRUDE TERMINAL, LLC
3020 OLD RANCH PARKWAY
SUITE J 300
SEAL BEACH, CA 90740

SJVAPCD
34946 Flyover Court
Bakersfield, CA 93308

Thank You!



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

SJVAPCD Tax ID: 77-0262563

Facility ID
S8165

Invoice Date
4/18/2013

Invoice Number
S106836

Invoice Type
Project: S1130908

BAKERSFIELD CRUDE TERMINAL, LLC
SOUTH LAKE ROAD AND SANITAGO ROAD
TAFT, CA

PROJECT NUMBER: 1130908

APPLICATION FILING FEES	\$ 213.00
ENGINEERING TIME FEES	\$ 323.40
TOTAL FEES	\$ 536.40
LESS PREVIOUSLY PAID PROJECT FEES APPLIED TO THIS INVOICE	(\$ 213.00)
PROJECT FEES DUE (Enclosed is a detailed statement outlining the fees for each item.)	\$ 323.40

Late Payment (see Rule 3010, Section 11.0 Late Fees)	
Postmarked	Total Due
After 6/17/2013 through 6/27/2013	\$ 355.74
After 6/27/2013	\$ 485.10
After 7/17/2013	Permits To Operate MAY BE SUSPENDED

San Joaquin Valley Air Pollution Control District
34946 Flyover Court, Bakersfield, CA 93308, (661) 392-5500, Fax (661) 392-5585

San Joaquin Valley Air Pollution Control District

Invoice Detail

Facility ID: S8165

BAKERSFIELD CRUDE TERMINAL, LLC
SOUTH LAKE ROAD AND SANITAGO ROAD
TAFT, CA

Invoice Nbr: S106836
Invoice Date: 4/18/2013
Page: 1

Application Filing Fees

Project Nbr	Permit Number	Description	Application Fee
S1130908	S-8165-1-1	150,000 BBL (6,300,000 GALLON) INTERNAL FLOATING ROOF CRUDE OIL STORAGE TANK WITH METAL SHOE PRIMARY SEAL AND WIPER SECONDARY SEAL	\$ 71.00
S1130908	S-8165-2-1	150,000 BBL (6,300,000 GALLON) INTERNAL FLOATING ROOF CRUDE OIL STORAGE TANK WITH METAL SHOE PRIMARY SEAL AND WIPER SECONDARY SEAL	\$ 71.00
S1130908	S-8165-3-1	ORGANIC LIQUID TRANSFER OPERATION WITH LIGHT CRUDE OIL RAILCAR UNLOADING RACK AND ASSOCIATED OFFLOADING, TRANSFER AND BOOSTER PUMPS	\$ 71.00
Total Application Filing Fees:			\$ 213.00

Engineering Time Fees

Project Nbr	Quantity	Rate	Description	Fee
S1130908	1.8 hours	\$ 139.00 /h	After-Hours Engineering Time(OverTime)	\$ 250.20
			Less Credit For Application Filing Fees	(\$ 213.00)
			After-Hours Engineering Time(OverTime) SubTotal	\$ 37.20
S1130908	2.7 hours	\$ 106.00 /h	Standard Engineering Time	\$ 286.20
Total Engineering Time Fees:				\$ 323.40



AUTHORITY TO CONSTRUCT

PERMIT NO: S-8165-1-1

ISSUANCE DATE: 04/18/2013

LEGAL OWNER OR OPERATOR: BAKERSFIELD CRUDE TERMINAL, LLC

MAILING ADDRESS: P O BOX 4648
HOUSTON, TX 77210-4648

LOCATION: SOUTH LAKE ROAD AND SANITAGO ROAD
TAFT, CA

SECTION: 13 TOWNSHIP: 32S RANGE: 25E

EQUIPMENT DESCRIPTION:

150,000 BBL (6,300,000 GALLON) INTERNAL FLOATING ROOF CRUDE OIL STORAGE TANK WITH METAL SHOE
PRIMARY SEAL AND WIPER SECONDARY SEAL

CONDITIONS

1. This Authority to Construct (ATC) shall cancel and replace ATC S-8165-1-0 [District Rule 2201]
All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Maximum throughput of the tank shall not exceed 91,623 bbl/day. [District Rule 2201]
5. Maximum combined throughput of the tanks listed on permits S-8165-1 and '-2 shall not exceed 25,550,000 bbl/year. [District Rule 2201]
6. Annual emissions from the tanks listed on S-8165-1 and '-2 shall not exceed 18,920 lb-VOC/year. [District Rule 2201]
7. The Reid Vapor Pressure (RVP) of liquid introduced, placed, or stored in the tank shall be less than 11.0 psia. [District Rules 2201 and 4623, and 40 CFR 60.110b(b)]
8. If any shipment of organic liquid with an RVP greater than 8.3 psia is introduced, placed, or stored in this tank in any calendar year, compliance with annual combined emission limit for the tanks listed on S-8165-1 and '-2 shall be demonstrated by calculating and maintaining an annual emissions summary using the EPA's TANKS program. [District Rules 2201 and 4623, and 40 CFR 60.110b(b)]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services

S 8165-1-1 Apr 18 2013 2:56PM - GILLES SR Joint Inspection NOT Required

9. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal roof shall be floating on the liquid surface except during initial fill and when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on its legs, the permittee shall notify the APCO in writing at least five days prior to performing the work. [District Rule 4623, and 40 CFR 60.112b(a)(i)]
10. The internal floating roof tank shall be equipped with two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous. [40 CFR 60.112b(a)(ii-B)]
11. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background, except for primary and secondary seals, floating roof deck fittings, and floating roof automatic bleeder vents is a violation of this permit and Rule 4623. [District Rule 4623]
12. Gaps between the tank shell and the primary seal shall not exceed 2 1/2 inches. [District Rule 4623]
13. The cumulative length of all primary seal gaps greater than 1 1/2 inches shall not exceed 10% of the circumference of the tank. [District Rule 4623]
14. The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623]
15. No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623]
16. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623]
17. The cumulative length of all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623]
18. The metallic shoe-type seal shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 12 inches above the stored liquid surface. [District Rule 4623]
19. The geometry of the metallic-shoe type seal shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 3 inches for a length of at least 12 inches in the vertical plane above the liquid. [District Rule 4623]
20. There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. [District Rule 4623]
21. The secondary seal shall allow easy insertion of probes up to 2 1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623]
22. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623]
23. All openings in the roof used for sampling and gauging, except pressure-vacuum valves which shall be set to within 10% of the maximum allowable working pressure of the roof, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be gas tight, except when the device or appurtenance is in use. [District Rule 4623]
24. Each opening in a non-contact internal floating roof, except for automatic bleeder vents (vacuum breaker vents) and rim space vents, shall provide a projection below the liquid surface. [District Rule 4623, and 40 CFR 60.112b(a)(iii)]
25. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use. [District Rule 4623, and 40 CFR 60.112b(a)(iv)]

CONDITIONS CONTINUE ON NEXT PAGE

26. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. [District Rule 4623, and 40 CFR 60.112b(a)(v)]
27. Rim vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [District Rule 4623, and 40 CFR 60.112b(a)(vi)]
28. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90% of the opening. The fabric cover must be impermeable. [District Rule 4623, and 40 CFR 60.112b(a)(vii)]
29. Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. The fabric sleeve must be impermeable. [District Rule 4623, and 40 CFR 60.112b(a)(viii)]
30. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. [40 CFR 60.112b(a)(ix)]
31. The permittee shall visually inspect the internal floating roof, and its appurtenant parts, fittings, etc. and measure the gaps of the primary seal and/or secondary seal prior to filling the tank for newly constructed, repair, or rebuilt internal floating roof tanks. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to filling the tank. [District Rule 4623]
32. The permittee shall visually inspect, through the manholes, roof hatches, or other openings on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of vapors. Any defects found are violations of this rule. [District Rule 4623]
33. The permittee shall conduct actual gap measurements of the primary seal and/or secondary seal at least once every 60 months. [District Rule 4623]
34. Permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of Rule 4623. [District Rule 4623]
35. Permittee shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the true vapor pressure (TVP), API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623]
36. Operator shall maintain daily and annual records of the throughput of materials transferred into tank, the results of any required leak inspections, and annual tank emissions if any liquid is introduced, placed, or stored in the tank that has an RVP greater than 8.3 psia. [District Rules 2201 and 4623]
37. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 1070 and 4623]



AUTHORITY TO CONSTRUCT

PERMIT NO: S-8165-2-1

ISSUANCE DATE: 04/18/2013

LEGAL OWNER OR OPERATOR: BAKERSFIELD CRUDE TERMINAL, LLC
MAILING ADDRESS: P O BOX 4648
HOUSTON, TX 77210-4648

LOCATION: SOUTH LAKE ROAD AND SANITAGO ROAD
TAFT, CA

SECTION: 13 TOWNSHIP: 32S RANGE: 25E

EQUIPMENT DESCRIPTION:

150,000 BBL (6,300,000 GALLON) INTERNAL FLOATING ROOF CRUDE OIL STORAGE TANK WITH METAL SHOE
PRIMARY SEAL AND WIPER SECONDARY SEAL

CONDITIONS

1. This Authority to Construct (ATC) shall cancel and replace ATC S-8165-2-0 [District Rule 2201]
All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Maximum throughput of the tank shall not exceed 91,623 bbl/day. [District Rule 2201]
5. Maximum combined throughput of the tanks listed on permits S-8165-1 and '-2 shall not exceed 25,550,000 bbl/year. [District Rule 2201]
6. Annual emissions from the tanks listed on S-8165-1 and '-2 shall not exceed 18,920 lb-VOC/year. [District Rule 2201]
7. The Reid Vapor Pressure (RVP) of liquid introduced, placed, or stored in the tank shall be less than 11.0 psia. [District Rules 2201 and 4623, and 40 CFR 60.110b(b)]
8. If any shipment of organic liquid with an RVP greater than 8.3 psia is introduced, placed, or stored in this tank in any calendar year, compliance with annual combined emission limit for the tanks listed on S-8165-1 and '-2 shall be demonstrated by calculating and maintaining an annual emissions summary using the EPA's TANKS program. [District Rules 2201 and 4623, and 40 CFR 60.110b(b)]

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCD

DAVID WARNER, Director of Permit Services

8165-2-1: Apr 18 2013 2:56PM - GILLESR Joint Inspection NOT Required

9. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal roof shall be floating on the liquid surface except during initial fill and when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on its legs, the permittee shall notify the APCO in writing at least five days prior to performing the work. [District Rule 4623, and 40 CFR 60.112b(a)(i)]
10. The internal floating roof tank shall be equipped with two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous. [40 CFR 60.112b(a)(ii-B)]
11. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background, except for primary and secondary seals, floating roof deck fittings, and floating roof automatic bleeder vents is a violation of this permit and Rule 4623. [District Rule 4623]
12. Gaps between the tank shell and the primary seal shall not exceed 2 1/2 inches. [District Rule 4623]
13. The cumulative length of all primary seal gaps greater than 1 1/2 inches shall not exceed 10% of the circumference of the tank. [District Rule 4623]
14. The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623]
15. No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623]
16. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623]
17. The cumulative length of all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623]
18. The metallic shoe-type seal shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 12 inches above the stored liquid surface. [District Rule 4623]
19. The geometry of the metallic-shoe type seal shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 3 inches for a length of at least 12 inches in the vertical plane above the liquid. [District Rule 4623]
20. There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. [District Rule 4623]
21. The secondary seal shall allow easy insertion of probes up to 2 1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623]
22. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623]
23. All openings in the roof used for sampling and gauging, except pressure-vacuum valves which shall be set to within 10% of the maximum allowable working pressure of the roof, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be gas tight, except when the device or appurtenance is in use. [District Rule 4623]
24. Each opening in a non-contact internal floating roof, except for automatic bleeder vents (vacuum breaker vents) and rim space vents, shall provide a projection below the liquid surface. [District Rule 4623, and 40 CFR 60.112b(a)(iii)]
25. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use. [District Rule 4623, and 40 CFR 60.112b(a)(iv)]

CONDITIONS CONTINUE ON NEXT PAGE

26. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. [District Rule 4623, and 40 CFR 60.112b(a)(v)]
27. Rim vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [District Rule 4623, and 40 CFR 60.112b(a)(vi)]
28. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90% of the opening. The fabric cover must be impermeable. [District Rule 4623, and 40 CFR 60.112b(a)(vii)]
29. Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. The fabric sleeve must be impermeable. [District Rule 4623, and 40 CFR 60.112b(a)(viii)]
30. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. [40 CFR 60.112b(a)(ix)]
31. The permittee shall visually inspect the internal floating roof, and its appurtenant parts, fittings, etc. and measure the gaps of the primary seal and/or secondary seal prior to filling the tank for newly constructed, repair, or rebuilt internal floating roof tanks. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to filling the tank. [District Rule 4623]
32. The permittee shall visually inspect, through the manholes, roof hatches, or other openings on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of vapors. Any defects found are violations of this rule. [District Rule 4623]
33. The permittee shall conduct actual gap measurements of the primary seal and/or secondary seal at least once every 60 months. [District Rule 4623]
34. Permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of Rule 4623. [District Rule 4623]
35. Permittee shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the true vapor pressure (TVP), API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623]
36. Operator shall maintain daily and annual records of the throughput of materials transferred into tank, the results of any required leak inspections, and annual tank emissions if any liquid is introduced, placed, or stored in the tank that has an RVP greater than 8.3 psia. [District Rules 2201 and 4623]
37. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 1070 and 4623]



AUTHORITY TO CONSTRUCT

PERMIT NO: S-8165-3-1

ISSUANCE DATE: 04/18/2013

LEGAL OWNER OR OPERATOR: BAKERSFIELD CRUDE TERMINAL, LLC
MAILING ADDRESS: P O BOX 4648
HOUSTON, TX 77210-4648

LOCATION: SOUTH LAKE ROAD AND SANITAGO ROAD
TAFT, CA

SECTION: 13 TOWNSHIP: 32S RANGE: 25E

EQUIPMENT DESCRIPTION:

ORGANIC LIQUID TRANSFER OPERATION WITH LIGHT CRUDE OIL RAILCAR UNLOADING RACK AND ASSOCIATED OFFLOADING, TRANSFER AND BOOSTER PUMPS

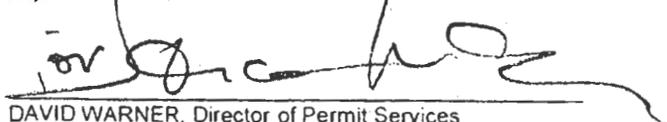
CONDITIONS

1. This Authority to Construct (ATC) shall cancel and replace ATC S-8165-3-0 [District Rule 2201]
No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. There shall be no more than 208 disconnects per day and 75,920 disconnects per year. [District Rule 2201]
4. Fugitive emissions from components shall exceed neither 1.7 lb-VOC/day nor 617 lb-VOC/year based on EPA's "Marketing Terminal Average Emission Factors," Table 2-3 of EPA Bulletin 453/R-95-017, Protocol for Equipment Leak Emission Estimates. [District Rule 2201]
5. Loading of any material into railcars is not permitted. [District Rule 2201]
6. Maximum liquid spillage for liquids from organic liquid transfer operation shall not exceed 3.2 milliliters/disconnect based on an average from 3 consecutive disconnects. [District Rules 2201 and 4624]
7. For this Class 1 organic liquid transfer facility, the emission of VOC from the transfer operation shall not exceed 0.08 pounds per 1,000 gallons of organic liquid transferred. [District Rule 4624]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyyed Sacredin, Executive Director / APCO



DAVID WARNER, Director of Permit Services

S 8165-3-1 Ap: 18 2013 2:57PM - GILLESPIE Joint Inspection NOT Required

8. All unloaded liquids and gases shall be routed to one of the following systems: a vapor collection and control system; a fixed roof container that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); a floating roof container that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); or a pressure vessel equipped with an APCO-approved vapor recovery system that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); or a closed VOC emission control system. [District Rule 4624]
9. Components serving this operation shall be maintained in a leak-free condition. [District Rule 2201]
10. A leak is defined as the dripping of VOC-containing liquid at a rate of more than three (3) drops per minute; or for organic liquids other than gasoline, the detection of any gaseous or vapor emissions with a concentration of VOC greater than 1,000 ppmv above a background as methane when measured in accordance with the test method in Section 6.3.7; gasoline, a concentration of VOC greater than 10,000 ppmv, as methane, above background when measured in accordance with the test method in Section 6.3.7. Any liquid or gas coming from a component undergoing repair or replacement, or during sampling of process fluid from equipment into a container is not considered a leak provided such activities are accomplished as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rules 2201 and 4624]
11. The operator of an organic liquid transfer facility shall inspect the vapor collection system, the vapor disposal system, and each transfer rack handling organic liquids for leaks during transfer at least once every calendar quarter using the test method prescribed in Section 6.3.8 of Rule 4624. [District Rule 4624]
12. A floating roof container that meets the applicable control requirements of Section 5.0 of Rule 4623 (Storage of Organic Liquids) shall be considered not leaking when receiving unloaded liquids for compliance with Rule 4624. [District Rule 4624]
13. All equipment that is found leaking shall be repaired or replaced within 72 hours. If the leaking component cannot be repaired or replaced within 72 hours, the component shall be taken out of service until such time the component is repaired or replaced. The repaired or replacement equipment shall be reinspected the first time the equipment is in operation after the repair or replacement. [District Rule 4624]

An operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually provided no leaks were found during the inspections required under provisions of Sections 5.9.1 and 5.9.2 of Rule 4624 during five consecutive quarterly inspections. Upon identification of any leak during an annual inspection the frequency shall revert back to quarterly and the operator shall contact the APCO in writing within 14 days. [District Rule 4624]
15. Daily and annual records of the throughputs of materials transferred, the results of any required leak inspections, and the quantity and type of components in service shall be maintained. [District Rules 2201 and 4624]
16. Daily and annual records of the number of disconnects shall be maintained. [District Rule 2201]
17. Permit holder shall maintain accurate component count and resultant emissions according to EPA's "Marketing Terminal Average Emission Factors," Table 2-3 of EPA Bulletin 453/R-95-017, Protocol for Equipment Leak Emission Estimates. [District Rule 2201]
18. All records required by this permit shall be retained for a period of at least 5 years and shall be made available to the District upon request. [District Rules 1070 and 4624]

C



San Joaquin Valley Air Pollution Control District

Authority to Construct Application Review

Installation of Light Oil Unloading Rack and Two Internal Floating Roof Light Oil Storage Tanks

Facility Name: Bakersfield Crude Terminal, LLC Date: July 25, 2012
Mailing Address: 3020 Old Ranch Pkwy, Ste 300 Engineer: Kris Rickards
Seal Beach, CA 90740 Lead Engineer: Rich Karrs
Contact Person: Michael Ernst
Telephone: 916-817-4790
Fax: 916-817-4747
E-Mail: Michael.Ernst@hdrinc.com
Application #(s): S-8165-1-0, '-2-0 and '-3-0
Project #: S-1121576
Deemed Complete: June 11, 2012

Rawk
7-26-12

I. Proposal

Bakersfield Crude Terminal, LLC (hereafter referred to as BCT) has requested an Authority to Construct (ATC) permit for the installation of a railcar unloading and light oil transfer and storage facility in Taft. This facility will unload railcars either directly to pipelines or to one of two proposed 150,000 barrel fixed roof internal floating roof tanks.

II. Applicable Rules

Rule 2201 New and Modified Stationary Source Review Rule (4/21/11)
Rule 2520 Federally Mandated Operating Permits (6/21/01)
Rule 4001 New Source Performance Standards (4/14/99)
Rule 4002 National Emissions Standards for Hazardous Air Pollutants (5/20/04)
Rule 4101 Visible Emissions (2/17/05)
Rule 4102 Nuisance (12/17/92)
Rule 4623 Storage of Organic Liquids (May 19, 2005)
Rule 4624 Transfer of Organic Liquids (12/20/07)
CH&SC 41700 Health Risk Assessment
CH&SC 42301.6 School Notice
Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

III. Project Location

The equipment will be located at the corner of South Lake Road and Sanitago Road in Taft within Section 13, Township 32S, Range 25E. The equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. Process Description

BCT proposes to install and operate a railcar unloading terminal that will unload light oil from up to two unit trains (168,000 bbl) per day. Offloading will be accomplished using a maximum of fifteen 50 hp pumps with an approximate flow rate of 6,000 bbl/hour for each unloading station (12,000 bbl/hour maximum) and is expected to operate 14 hours/day. This unloading operation may transfer light oil either to storage tanks for subsequent transfer to pipelines or it may bypass tanks and go directly to pipelines.

Transfer to pipelines will be accomplished using two 150 hp crude oil booster pumps, each with a flow rate of 3,500 bbl/hour. Maximum rail-to-pipeline transfer is 168,000 bbl/day and 61,320,000 bbl/year.

Each internal floating roof tank will have a capacity of approximately 150,000 bbl. During normal offloading operations, 5,000 bbl/hour and 70,000 bbl/day will be transferred to the tanks. Maximum combined throughput for both tanks is 168,000 bbl/day and 25,550,000 bbl/year. Two 400 hp pumps (one per tank) will pump oil from storage to the booster pumps prior to entering pipelines.

Please also see process diagram in Appendix D.

V. Equipment Listing

S-8165-1-0: 150,000 BBL (6,300,000 GALLON) INTERNAL FLOATING ROOF CRUDE OIL STORAGE TANK WITH METAL SHOE PRIMARY SEAL AND WIPER SECONDARY SEAL

S-8165-2-0: 150,000 BBL (6,300,000 GALLON) INTERNAL FLOATING ROOF CRUDE OIL STORAGE TANK WITH METAL SHOE PRIMARY SEAL AND WIPER SECONDARY SEAL

S-8165-3-0: ORGANIC LIQUID TRANSFER OPERATION WITH LIGHT CRUDE OIL RAILCAR UNLOADING RACK AND ASSOCIATED OFFLOADING TRANSFER AND BOOSTER PUMPS

VI. Emission Control Technology Evaluation

Emissions from unloading volatile organic liquids from railcars include both fugitive VOC emissions from the components of the loading rack and VOC emissions from residual organic liquids lost in disconnecting the loading rack equipment from railcars. Dry-break couplers will also be used to minimize emissions and limited to 3.2 mL/disconnect (proposed connectors have a residual average loss of 3.02 mL/disconnect per BCT).

Emissions from the internal floating roof tanks will be reduced as the tanks are equipped with a metal shoe primary seal and wiper secondary seal that minimize VOC emissions due to evaporation by reducing the air space above the surface of the stored organic liquid. This configuration will result in at least 95% control of emissions from the tanks.

VII. General Calculations

A. Assumptions

Internal Floating Roof Tanks, S-8165-1 and '-2:

- This facility may operate 24 hours per day, 365 days per year
- VOC is the only pollutant emitted from this operation
- Tank factors and characteristics are provided by applicant (see Tanks 4.0 summary in Appendix E for tank characteristics detail)
- All hydrocarbons in the oil stream are VOCs (VOC content = 100%)
- All liquids stored and transferred will be light crude oil (per Applicant)
- All fugitive component emissions from the tanks will be included on the railcar unloading rack permit
- Maximum daily crude oil throughput is limited so that daily tank emissions will be less than 100 lb/day
- Maximum combined annual crude oil throughput is limited to 25,550,000 bbl/year

Railcar Unloading Rack, S-8165-3:

- This facility may operate 24 hours per day, 365 days per year
- VOC is the only pollutant emitted from this operation
- All hydrocarbons in the oil stream are VOCs (VOC content = 100%)
- All liquids transferred will be light crude oil (per Applicant)
- Fugitive component emissions are calculated using Marketing Terminal Average Emission Factors (Table 2-3 of EPA bulletin 453/R-95-017)
- Disconnects are limited to 208/day, 75,920/year and 3.2 mL/disconnect (per Applicant)
- Crude oil density = 7.1 lb/gallon (AP-42, Table 7.1-2)

B. Emission Factors

Marketing Terminal Average Emission Factors (Table 2-3 of EPA bulletin 453/R-95-017):

VOC Emission Factors		
Equipment Type	Light Liquid Emission Factor (kg/hr/source)	Light Liquid Emission Factor (lb/hr/source)
Valves	4.3E-05	9.5E-05
Pump Seals	5.4E-04	1.2E-03
Others	1.3E-04	2.9E-04
Connectors	8.0E-06	1.8E-05

C. Calculations

1. Pre-Project Potential to Emit (PE1)

Since these are new emissions units, PE1 = 0 for all pollutants.

2. Post Project Potential to Emit (PE2)

S-8165-1-0 and '-2-0:

The potential to emit for the tanks was performed using the Tanks 4.0 program. The detail report including input data is located in Appendix E.

Daily emissions are calculated assuming a maximum daily throughput of crude with an RVP of 11.0 psia not to exceed 100 lb-VOC/day. Using Tanks 4.0 (see summary in Appendix E), the following daily throughput limit is calculated using the annual emissions and annual tank throughput:

$$(13,961 \text{ lb-VOC/year}) / (365 \text{ days/year}) = 38.2 \text{ lb-VOC/day for a daily throughput of:}$$

$$(12,775,000 \text{ bbl/year}) / (365 \text{ days/year}) = 35,000 \text{ bbl/day}$$

Then using the 100 lb-pollutant/day threshold before public noticing is required:

$$(100 \text{ lb-VOC/day}) / (38.2 \text{ lb-VOC/day}) \times (35,000 \text{ bbl/day}) = 91,623 \text{ bbl/day per tank.}$$

Fugitive emissions from components in light oil service that connect the tanks, through the two oil pumps, to the pipeline will be listed with components on the organic liquid loading rack.

Emissions from each tank are summarized in the table below:

Post Project Potential to Emit (PE2)		
	Daily Emissions (lb/day)	Annual Emissions (lb/year)
VOC	100.0	9,460

S-8165-3-0:

Emissions from the unloading rack will consist of disconnect losses and fugitive emissions from components in light oil service from the railcars to the tank.

Disconnect losses are calculated as follows:

$$\left(\frac{208 \text{ disconnects}}{\text{day}} \right) \frac{3.2 \text{ mL}}{\text{disconnect}} \left(\frac{0.000264 \text{ gallons}}{\text{mL}} \right) \frac{7.1 \text{ lb}}{\text{gallon}} = 1.2 \frac{\text{lb} \cdot \text{VOC}}{\text{day}}$$

$$\left(\frac{75,920 \text{ disconnects}}{\text{year}} \right) \frac{3.2 \text{ mL}}{\text{disconnect}} \left(\frac{0.000264 \text{ gallons}}{\text{mL}} \right) \frac{7.1 \text{ lb}}{\text{gallon}} = 455 \frac{\text{lb} \cdot \text{VOC}}{\text{year}}$$

Using marketing terminal average emission factors and component counts provided by BCT, the following fugitive emissions that will be listed on the unloading rack permit are calculated.

Fugitive Emissions from Components				
Equipment Type	Number of Components per tank	Light Liquid Emission Factor (lb/hr/source)	Fugitive VOC Emissions (lb/day)	Fugitive VOC Emissions (lb/yr)
Valves	350	9.5E-05	0.8	291
Pump Seals	19	1.2E-03	0.5	200
Others	0	2.9E-04	0.0	0
Connectors	800	1.8E-05	0.3	126
Total =			1.7	617

Emissions from the unloading rack are summarized in the table below:

Post Project Potential to Emit (PE2)		
	Daily Emissions (lb/day)	Annual Emissions (lb/year)
Disconnect Losses	1.2	455
Fugitive Emissions	1.7	617
Total VOC	2.9	1,072

3. Pre-Project Stationary Source Potential to Emit (SSPE1)

Pursuant to District Rule 2201, the SSPE1 is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of Emission Reduction Credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions (AER) that have occurred at the source, and which have not been used on-site.

Since this is a new facility, there are no valid ATCs, PTOs, or ERCs at the Stationary Source; therefore, the SSPE1 is equal to zero.

4. Post Project Stationary Source Potential to Emit (SSPE2)

Pursuant to District Rule 2201, the SSPE2 is the PE from all units with valid ATCs or PTOs at the Stationary Source and the quantity of ERCs which have been banked since September 19, 1991 for AER that have occurred at the source, and which have not been used on-site.

SSPE2 (lb/year)					
Permit Unit	NO _x	SO _x	PM ₁₀	CO	VOC
S-8165-1-0	0	0	0	0	9,460
S-8165-2-0	0	0	0	0	9,460
S-8165-3-0	0	0	0	0	1,072
SSPE2	0	0	0	0	19,992

5. Major Source Determination

Pursuant to District Rule 2201, a Major Source is a stationary source with a SSPE2 equal to or exceeding one or more of the following threshold values. However, for the purposes of determining major source status, the SSPE2 shall not include the quantity of ERCs which have been banked since September 19, 1991 for AER that have occurred at the source, and which have not been used on-site."

Major Source Determination (lb/year)					
	NO _x	SO _x	PM ₁₀	CO	VOC
SSPE1	0	0	0	0	0
SSPE2	0	0	0	0	19,992
Major Source Threshold	20,000	140,000	140,000	200,000	20,000
Major Source?	No	No	No	No	No

As seen in the table above, the facility is not an existing Major Source and is not becoming a Major Source as a result of this project.

6. Baseline Emissions (BE)

The BE calculation (in lbs/year) is performed pollutant-by-pollutant for each unit within the project to calculate the QNEC, and if applicable, to determine the amount of offsets required.

Pursuant to District Rule 2201, BE = PE1 for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,
- Any Fully-Offset Emissions Unit, located at a Major Source, or
- Any Clean Emissions Unit, located at a Major Source.

otherwise,

BE = Historic Actual Emissions (HAE), calculated pursuant to District Rule 2201.

Since these are new emissions units, BE = PE1 = 0 for all pollutants.

7. SB 288 Major Modification

SB 288 Major Modification is defined in 40 CFR Part 51.165 as "any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act."

Since this facility is not a major source for any of the pollutants addressed in this project, this project does not constitute an SB 288 major modification.

8. Federal Major Modification

District Rule 2201 states that a Federal Major Modification is the same as a "Major Modification" as defined in 40 CFR 51.165 and part D of Title I of the CAA.

Since this facility is not a Major Source for any pollutants, this project does not constitute a Federal Major Modification. Additionally, since the facility is not a major source for PM₁₀ (140,000 lb/year), it is not a major source for PM_{2.5} (200,000 lb/year).

9. Quarterly Net Emissions Change (QNEC)

The QNEC is calculated solely to establish emissions that are used to complete the District's PAS emissions profile screen. Detailed QNEC calculations are included in Appendix G.

VIII. Compliance

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis. Unless specifically exempted by Rule 2201, BACT shall be required for the following actions*:

- a. Any new emissions unit with a potential to emit exceeding two pounds per day,
- b. The relocation from one Stationary Source to another of an existing emissions unit with a potential to emit exceeding two pounds per day,
- c. Modifications to an existing emissions unit with a valid Permit to Operate resulting in an AIPE exceeding two pounds per day, and/or
- d. Any new or modified emissions unit, in a stationary source project, which results in an SB 288 Major Modification or a Federal Major Modification, as defined by the rule.

*Except for CO emissions from a new or modified emissions unit at a Stationary Source with an SSPE2 of less than 200,000 pounds per year of CO.

a. New emissions units – PE > 2 lb/day

As seen in Section VII.C.2 above, the applicant is proposing to install two new tanks and a railcar unloading operation with a PE greater than 2 lb/day for VOC for each permit. BACT is triggered for VOC since the PE is greater than 2 lbs/day.

b. Relocation of emissions units – PE > 2 lb/day

As discussed in Section I above, there are no emissions units being relocated from one stationary source to another; therefore BACT is not triggered.

c. Modification of emissions units – AIPE > 2 lb/day

As discussed in Section I above, there are no modified emissions units associated with this project. Therefore BACT is not triggered.

d. SB 288/Federal Major Modification

As discussed in Section VII.C.7 above, this project does not constitute an SB 288 or Federal Major Modification for any emissions. Therefore BACT is not triggered for any pollutant.

2. BACT Guideline

BACT Guideline 7.3.3 applies to floating roof organic liquid storage tanks ≥ 471 bbl and ≥ 0.5 psia TVP. BACT Guideline 7.1.14 applies to light crude oil unloading racks. (See Appendix B)

3. Top-Down BACT Analysis

Per Permit Services Policies and Procedures for BACT, a Top-Down BACT analysis shall be performed as a part of the application review for each application subject to the BACT requirements pursuant to the District's NSR Rule.

Pursuant to the attached Top-Down BACT Analysis (see Appendix C), BACT has been satisfied with the following:

S-8165-1-0 and '2-0:

VOC: 95% Control (Primary metal shoe seal with secondary wiper seal, or equal)

S-8165-3-0:

VOC: Use of dry-break couplers or equivalent on unloading lines with an average disconnect loss of no greater than 8 mL liquid per disconnect

B. Offsets

1. Offset Applicability

Offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the SSPE2 equals to or exceeds the offset threshold levels in Table 4-1 of Rule 2201.

The SSPE2 is compared to the offset thresholds in the following table.

Offset Determination (lb/year)					
	NO _x	SO _x	PM ₁₀	CO	VOC
SSPE2	0	0	0	0	19,992
Offset Thresholds	20,000	54,750	29,200	200,000	20,000
Offsets triggered?	No	No	No	No	No

2. Quantity of Offsets Required

As seen above, the SSPE2 is not greater than the offset thresholds for all the pollutants; therefore offset calculations are not necessary and offsets will not be required for this project.

C. Public Notification

1. Applicability

Public noticing is required for:

- a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications,
- b. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
- c. Any project which results in the offset thresholds being surpassed, and/or
- d. Any project with an SSIPE of greater than 20,000 lb/year for any pollutant.

a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications

New Major Sources are new facilities, which are also Major Sources. As shown in Section VII.C.5 above, the SSPE2 is not greater than the Major Source threshold for any pollutant. Therefore, public noticing is not required for this project for new Major Source purposes.

As demonstrated in VII.C.7, this project does not constitute an SB 288 or Federal Major Modification; therefore, public noticing for SB 288 or Federal Major Modification purposes is not required.

b. PE > 100 lb/day

Applications which include a new emissions unit with a PE greater than 100 pounds during any one day for any pollutant will trigger public noticing requirements. As seen in Section VII.C.2 above, this project does not include a new emissions unit which has daily emissions greater than 100 lb/day for any pollutant; therefore public noticing for PE > 100 lb/day purposes is not required.

c. Offset Threshold

The SSPE1 and SSPE2 are compared to the offset thresholds in the following table.

Offset Thresholds				
Pollutant	SSPE1 (lb/year)	SSPE2 (lb/year)	Offset Threshold	Public Notice Required?
NO _x	0	0	20,000 lb/year	No
SO _x	0	0	54,750 lb/year	No
PM ₁₀	0	0	29,200 lb/year	No
CO	0	0	200,000 lb/year	No
VOC	0	19,992	20,000 lb/year	No

As detailed above, there were no thresholds surpassed with this project; therefore public noticing is not required for offset purposes.

d. SSIPE > 20,000 lb/year

Public notification is required for any permitting action that results in a SSIPE of more than 20,000 lb/year of any affected pollutant. According to District policy, the SSIPE = SSPE2 – SSPE1. The SSIPE is compared to the SSIPE Public Notice thresholds in the following table.

SSIPE Public Notice Thresholds					
Pollutant	SSPE2 (lb/year)	SSPE1 (lb/year)	SSIPE (lb/year)	SSIPE Public Notice Threshold	Public Notice Required?
NO _x	0	0	0	20,000 lb/year	No
SO _x	0	0	0	20,000 lb/year	No
PM ₁₀	0	0	0	20,000 lb/year	No
CO	0	0	0	20,000 lb/year	No
VOC	19,992	0	19,992	20,000 lb/year	No

As demonstrated above, the SSIPEs for all pollutants were less than 20,000 lb/year; therefore public noticing for SSIPE purposes is not required.

2. Public Notice Action

As discussed above, this project will not result in emissions, for any pollutant, which would subject the project to any of the noticing requirements listed above. Therefore, public notice will not be required for this project.

D. Daily Emission Limits (DELs)

DELs and other enforceable conditions are required by Rule 2201 to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. The DEL must be contained in the latest ATC and contained in or enforced by the latest PTO and enforceable, in a practicable manner, on a daily basis. DELs are also required to enforce the applicability of BACT.

S-8165-1-0 and '-2-0:

- {271} All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
- Maximum throughput of tank shall not exceed 91,623 bbl/day. [District Rule 2201]
- Maximum combined throughput of tanks listed on permits S-8165-1 and '-2 shall not exceed 25,550,000 bbl/year. [District Rule 2201]
- Annual emissions from tanks listed on S-8165-1 and '-2 shall not exceed 18,920 lb-VOC/year. [District Rule 2201]
- The Reid Vapor Pressure (RVP) of liquid introduced, placed, or stored in the tank shall be less than 11.0 psia. [District Rules 2201 and 4623, and 40 CFR 60.110b(b)]
- If any shipment of organic liquid with an RVP greater than 8.3 psia is introduced, placed, or stored in this tank in any calendar year, compliance with annual combined emission limit for tanks listed on S-8165-1 and '-2 shall be demonstrated by calculating and maintaining an annual emissions summary using the EPA's TANKS program. [District Rules 2201 and 4623, and 40 CFR 60.110b(b)]

S-8165-3-0:

- There shall be no more than 208 disconnects per day and 75,920 disconnects per year. [District Rule 2201]
- Fugitive emissions from components shall not exceed 1.7 lb-VOC/day nor 617 lb-VOC/year based on EPA's "Marketing Terminal Average Emission Factors," Table 2-3 of EPA Bulletin 453/R-95-017, Protocol for Equipment Leak Emission Estimates. [District Rule 2201]
- Loading of any material into railcars is not permitted. [District Rule 2201]
- Maximum liquid spillage for liquids from organic liquid transfer operation shall not exceed 3.2 milliliters/disconnect based on an average from 3 consecutive disconnects. [District Rules 2201 and 4624]
- Components serving this operation shall be maintained in a leak-free condition. [District Rule 2201]

E. Compliance Assurance

1. Source Testing

Pursuant to District Policy APR 1705, source testing is not required to demonstrate compliance with Rule 2201.

2. Monitoring

No monitoring is required to demonstrate compliance with Rule 2201.

3. Recordkeeping

Recordkeeping is required to demonstrate compliance with the offset, public notification and daily emission limit requirements of Rule 2201.

The following condition(s) are listed on the permit to operate:

S-8165-1 and '-2:

- Operator shall maintain daily and annual records of the throughput of materials transferred into tank, the results of any required leak inspections, and annual tank emissions if any liquid is introduced, placed, or stored in the tank that has an RVP greater than 8.3 psia. [District Rules 2201 and 4623]

S-8165-3:

- Daily and annual records of the throughputs of materials transferred, the results of any required leak inspections, and the quantity and type of components in service shall be maintained. [District Rules 2201 and 4624]
- Daily and annual records of the number of disconnects shall be maintained. [District Rule 2201]
- Permit holder shall maintain accurate component count and resultant emissions according to EPA's "Marketing Terminal Average Emission Factors," Table 2-3 of EPA Bulletin 453/R-95-017, Protocol for Equipment Leak Emission Estimates. [District Rule 2201]

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

Rule 2520 Federally Mandated Operating Permits

Since this facility's potential emissions do not exceed any major source thresholds of Rule 2201, this facility is not a major source, and Rule 2520 does not apply.

Rule 4001 New Source Performance Standards (NSPS)

This rule incorporates NSPS from Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR); and applies to all new sources of air pollution and modifications of existing sources of air pollution listed in 40 CFR Part 60. 40 CFR Part 60, Subpart Kb applies to Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984.

The new tanks in this project are subject to the requirements of 40 CFR Part 60, Subpart Kb as they have a capacity >10,000 bbls. The requirements for this New Source Performance Standard are discussed as follows:

40 CFR 60.112b

(a)(1)(i) This section requires that the internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of

filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.

(ii) Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:

(B) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

(iii) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

(iv) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

(v) Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

(vi) Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

(vii) Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

(viii) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

(ix) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

Paragraph (b) applies to storage vessels with a design capacity greater than or equal to 75 m³ which contains a VOL that, as stored, has a maximum true vapor pressure greater than or equal to 76.6 kPa (equivalent to 11.1 psia).

According to the Tanks 4.0.9d report in Appendix E, the maximum bulk storage temperature will occur in July with a temperature of 77 °F.

With a maximum annual RVP of 8.3 psia, the RVP is converted to TVP using the California Air Resources Board Technical Guidance to the Criteria and Guidelines Regulation for AB 2588 (Partial Excerpt from pages 102, 103 and 104) as follows:

$$TVP = (RVP)e^{C_0(IRTEMP-ITEMP)}$$

Where: C_0 = Constant dependent upon the value of RVP (from Table C-3)
 $ITEMP$ = $1/559.69^\circ R$
 $IRTEMP$ = $1/(T_s + 459.69^\circ R)$
 T_s = Temperature of the stored fluid in $^\circ F$

$$8.3e^{\left[-6.477.5\left(\left(\frac{1}{77+459.69}\right)-\left(\frac{1}{559.69}\right)\right)\right]} = 5.05 \text{ psia}$$

Since the maximum TVP will not be above 11.1 psia, paragraph (b) does not apply.

The following conditions will ensure compliance with section 40 CFR 60.112b:

- The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal roof shall be floating on the liquid surface except during initial fill and when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on it's legs, the permittee shall notify the APCO in writing at least five days prior to performing the work. [District Rule 4623, and 40 CFR 60.112b(a)(i)]
- The internal floating roof tank shall be equipped with two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous. [40 CFR 60.112b(a)(ii-B)]
- Each opening in a non-contact internal floating roof, except for automatic bleeder vents (vacuum breaker vents) and rim space vents, shall provide a projection below the liquid surface. [District Rule 4623, and 40 CFR 60.112b(a)(iii)]
- Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use. [District Rule 4623, and 40 CFR 60.112b(a)(iv)]
- Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. [District Rule 4623, and 40 CFR 60.112b(a)(v)]
- Rim vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [District Rule 4623, and 40 CFR 60.112b(a)(vi)]
- Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90% of the opening. The fabric cover must be impermeable. [District Rule 4623, and 40 CFR 60.112b(a)(vii)]

- Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. The fabric sleeve must be impermeable. [District Rule 4623, and 40 CFR 60.112b(a)(viii)]
- Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. [40 CFR 60.112b(a)(ix)]

40 CFR 60.113b

The owner or operator of each storage vessel as specified in §60.112b(a) shall meet the requirements of paragraph (a), (b), or (c) of this section. The applicable paragraph for a particular storage vessel depends on the control equipment installed to meet the requirements of §60.112b.

This equipment complies with paragraph (a) therefore the following is applicable:

(a) After installing the control equipment required to meet §60.112b(a)(1) (permanently affixed roof and internal floating roof), each owner or operator shall:

(1) Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

(2) For Vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in §60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(3) For vessels equipped with a double-seal system as specified in §60.112b(a)(1)(ii)(B):

- (i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least every 5 years; or
- (ii) Visually inspect the vessel as specified in paragraph (a)(2) of this section.

(4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close

off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.

(5) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

The following conditions will ensure compliance with section 40 CFR 60.113b:

- Permittee shall visually inspect the internal floating roof, the primary seal, and the secondary seal prior to filling the storage vessel. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel. [40 CFR 60.113b(a)(1)]
- Permittee shall visually inspect the internal floating roof and the primary seal or the secondary seal through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the volatile organic liquid inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the District in the inspection report required in §60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. [40 CFR 60.112b(a)(2)]
- After installation of the internal floating roof tank, the permittee shall visually inspect the vessel as specified in paragraph 40 CFR 60.113b(a)(4) of this section at least every 5 years or Visually inspect the vessel as specified in paragraph 40 CFR 60.113b(a)(2) of this section. [40 CFR 60.113b(a)(3)]
- Permittee shall visually inspect the internal floating roof, the primary seal, the secondary seal, gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified exist before refilling the storage vessel with VOL. [40 CFR 60.112b(a)(4)]

- Permittee shall notify the District in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the District the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the District at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the District at least 7 days prior to the refilling. [40 CFR 60.112b(a)(5)]

40 CFR 60.114b

This section addresses alternative emission limits that are not required on this equipment; therefore this section is not applicable.

40 CFR 60.115b

The owner or operator of each storage vessel as specified in §60.112b(a) shall keep records and furnish reports as required by paragraphs (a), (b), or (c) of this section depending upon the control equipment installed to meet the requirements of §60.112b. The owner or operator shall keep copies of all reports and records required by this section, except for the record required by (c)(1), for at least 2 years. The record required by (c)(1) will be kept for the life of the control equipment.

(a) After installing control equipment in accordance with §60.112b(a)(1) (fixed roof and internal floating roof), the owner or operator shall meet the following requirements:

(1) Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of §60.112b(a)(1) and §60.113b(a)(1). This report shall be an attachment to the notification required by §60.7(a)(3).

(2) Keep a record of each inspection performed as required by §60.113b (a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

(3) If any of the conditions described in §60.113b(a)(2) are detected during the annual visual inspection required by §60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

(4) After each inspection required by §60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in §60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of §60.112b(a)(1) or §60.113b(a)(3) and list each repair made.

The following conditions will ensure compliance with section 40 CFR 60.113b:

- The permittee shall submit to the APCO a report that describes the control equipment and certifies that the control equipment meets the specifications of 40 CFR 60.112b(a)(1) and 40 CFR 60.113b(a)(1). This report shall be an attachment to the notification required by 40 CFR 60.7(a)(3). [40 CFR 60.115b(a)(1)]
- The permittee shall keep a record of each inspection performed as required by 40 CFR 60.113b(a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings). [40 CFR 60.115b(a)(2)]
- If any of the conditions described in 40 CFR 60.113b(a)(2) are detected during the annual visual inspection required by 40 CFR 60.113b(a)(2), a report shall be furnished to the District within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made. [40 CFR 60.115b(a)(3)]
- After each inspection required by 40 CFR 60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in 40 CFR 60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of 40 CFR 60.112b(a)(1) or 40 CFR 60.113b(a)(3) and list each repair made. [40 CFR 60.115b(a)(4)]

40 CFR 60.116b

Paragraph (a) requires the owner or operator to keep copies of all records required by this section, except for the record required by paragraph (b) of this section, for at least 2 years. The record required by paragraph (b) of this section will be kept for the life of the source.

The recordkeeping requirement of District Rule 1070 supersedes the 2-year recordkeeping retention requirements of this paragraph.

Paragraph (b) requires the owner or operator of each storage vessel as specified in §60.110b(a) to keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel.

The Permit to Operate that will be retained and made available will list the capacity of the tank for as long as the unit is in service. Therefore, the District Permit to Operate will satisfy this requirement.

Paragraph (c) requires, except as provided in paragraphs (f) and (g) of this section, the owner or operator of each storage vessel to either with a design capacity greater than or equal to 151 m³ storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa or with a design capacity greater than or equal to 75 m³ but less than 151 m³ storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.

Except as provided in paragraph (g) of this section, paragraph (d) requires the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m³ storing a liquid with a maximum true vapor pressure that is normally less than 5.2 kPa or with a design capacity greater than or equal to 75 m³ but less than 151 m³ storing a liquid with a maximum true vapor pressure that is normally less than 27.6 kPa to notify the Administrator within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor pressure values for each volume range.

These tanks store fluid with a TVP >5.2 kPa (equivalent to 0.75 psia) and are larger than 151 m³ (equivalent to 950 bbls); therefore, the requirements of this paragraph are not applicable to these tanks.

(e) Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined below:

(1) For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.

(2) For crude oil or refined petroleum products the vapor pressure may be obtained by the following:

(i) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference—see §60.17), unless the Administrator specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

(ii) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.

(3) For other liquids, the vapor pressure:

(i) May be obtained from standard reference texts, or

(ii) Determined by ASTM D2879–83, 96, or 97 (incorporated by reference—see §60.17);
or

(iii) Measured by an appropriate method approved by the Administrator; or

(iv) Calculated by an appropriate method approved by the Administrator.

These tanks will exclusively store crude oils and will be subject to the test requirements of 40 CFR 60.116(b)(e)(2) only.

Paragraph (f) applies to vessels storing a waste mixture of indeterminate or variable composition.

These tanks will not be storing waste material; therefore this paragraph does not apply.

Paragraph (g) exempts operators from the requirements of paragraphs (c) and (d) on vessels equipped with a closed vent system and control device meeting the specification of §60.112b or with emissions reductions equipment as specified in 40 CFR 65.42(b)(4), (b)(5), (b)(6), or (c).

Since these tanks are not equipped with closed vent systems or operate with equipment as specified in 40 CFR 65.42(b)(4), (b)(5), (b)(6) the requirements of paragraphs (c) and (d) are applicable.

The following conditions will ensure compliance with this section:

- The permittee shall maintain a record of the Volatile Organic Liquid (VOL) stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period. [40 CFR 60.116b(c)]

This rule incorporates NSPS from Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR); and applies to all new sources of air pollution and modifications of existing sources of air pollution listed in 40 CFR Part 60. However, no subparts of 40 CFR Part 60 apply to rail car unloading operations.

Rule 4002 National Emission Standards for Hazardous Air Pollutants (NESHAPs)

This rule incorporates NESHAPs from Part 61, Chapter I, Subchapter C, Title 40, CFR and the NESHAPs from Part 63, Chapter I, Subchapter C, Title 40, CFR; and applies to all sources of hazardous air pollution listed in 40 CFR Part 61 or 40 CFR Part 63. However, no subparts of 40 CFR Part 61 or 40 CFR Part 63 apply to organic liquid storage tanks or rail car unloading operations.

Rule 4101 Visible Emissions

Rule 4101 states that no person shall discharge into the atmosphere emissions of any air contaminant aggregating more than 3 minutes in any hour which is as dark as or darker than Ringelmann 1 (or 20% opacity). As emissions from this equipment consist only of fugitive VOC emissions, visible emissions are not expected to exceed Ringelmann 1 or 20% opacity.

Rule 4102 Nuisance

Rule 4102 prohibits discharge of air contaminants which could cause injury, detriment, nuisance or annoyance to the public. Public nuisance conditions are not expected as a result of these operations, provided the equipment is well maintained.

The following condition will ensure compliance with this rule:

- {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

California Health & Safety Code 41700 (Health Risk Assessment)

District Policy APR 1905 – *Risk Management Policy for Permitting New and Modified Sources* specifies that for an increase in emissions associated with a proposed new source or modification, the District perform an analysis to determine the possible impact to the nearest resident or worksite.

An HRA is not required for a project with a total facility prioritization score of less than one. According to the Technical Services Memo for this project (**Appendix F**), the total facility prioritization score including this project was greater than one. Therefore, an HRA was required to determine the short-term acute and long-term chronic exposure from this project.

The cancer risk for this project is shown below:

HRA Summary		
Unit	Cancer Risk	T-BACT Required
S-8165-1	0.03 per million	No
S-8165-2	0.04 per million	No
S-8165-3	0.76 per million	No

Discussion of T-BACT

BACT for toxic emission control (T-BACT) is required if the cancer risk exceeds one in one million. As demonstrated above, T-BACT is not required for this project because the HRA indicates that the risk is not above the District's thresholds for triggering T-BACT requirements; therefore, compliance with the District's Risk Management Policy is expected.

District policy APR 1905 also specifies that the increase in emissions associated with a proposed new source or modification not have acute or chronic indices, or a cancer risk greater than the District's significance levels (i.e. acute and/or chronic indices greater than 1 and a cancer risk greater than 10 in a million). As outlined by the HRA Summary in Appendix F of this report, the emissions increases for this project was determined to be less than significant.

Rule 4623 Storage of Organic Liquids

This rule applies to any tank with a design capacity of 1,100 gallons or greater used to store organic liquid with a True Vapor Pressure (TVP) of 0.5 psia or greater. Since these tanks are greater than 1,100 gallons and store organic liquid with a TVP >0.5 psia they are subject to this rule.

Section 5.1 requires that, except for small producers who are required to comply with the VOC control system requirements in Section 5.1.2, an operator shall not place, hold, or store organic liquid in any tank unless such tank is equipped with a VOC control system identified in

Table 1. The specifications for the VOC control system are described in Sections 5.2, 5.3, 5.4, 5.5, and 5.6.

Section 5.1.1 identifies VOC control systems required for organic liquids storage tanks.

Tank Design Capacity (gallon)	True Vapor Pressure (TVP) of Organic Liquid		
	0.5 < TVP (psia) <1.5	1.5 < TVP (psia) <11	11 < TVP (psia)
1,100 to 19,800	Pressure Vacuum Relief Valve, Or Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System	Pressure Vacuum Relief Valve, Or Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System	Pressure Vessel, Or Vapor Recovery System
>19,800 to 39,600	Pressure Vacuum Relief Valve, Or Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System	Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System	Pressure Vessel, Or Vapor Recovery System
>39,600	Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System	Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System	Pressure Vessel, Or Vapor Recovery System

The tank design capacity is 6.3 million gallons and storing organic fluid with a TVP less than 11 psia. Therefore, the internal floating roof design satisfies the requirements of this section. The following condition will be listed on the ATCs to ensure compliance with the maximum TVP limit for which these internal floating roof tanks can store:

- The Reid Vapor Pressure (RVP) of liquid introduced, placed, or stored in the tank shall be less than 11.0 psia. [District Rules 2201 and 4623, and 40 CFR 60.110b(b)]
- If any shipment of organic liquid with an RVP greater than 8.3 psia is introduced, placed, or stored in this tank in any calendar year, compliance with annual combined emission limit for tanks listed on S-8165-1 and '-2 shall be demonstrated by calculating and maintaining an annual emissions summary using the EPA's TANKS program. [District Rules 2201 and 4623, and 40 CFR 60.110b(b)]

Section 5.1.2 applies to small producers. This facility does not produce oil; therefore this section does not apply.

Section 5.1.3 requires all tanks to be maintained in a leak-free condition except the primary and secondary seals, floating roof deck fittings, and floating roof automatic bleeder vents of internal floating roof tanks.

The following condition will ensure compliance with this rule:

- A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background, except for primary and secondary seals, floating roof deck fittings, and floating roof automatic bleeder vents is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623]

Section 5.3 applies to external floating roof tanks and through **Section 5.4**, internal floating roof tanks as well. The requirements of this section will be evaluated in the **Section 5.4** discussion.

Section 5.3.2 allows for seal designs other than set forth in **Sections 5.3.2.1** through **5.3.2.3** provided such designs have been published in the Federal Register pursuant to CFR 40 Part 60: Subpart Kb paragraph 60.114b.

BCT has requested that the vertical distance from the liquid surface to the top of the metallic primary shoe seal be 12" as opposed to the Rule 4623 required 18". Since this seal design satisfies Subpart Kb (paragraph 60.112b) it is not considered an alternative as described by paragraph 60.114b and does not require publishing in the Federal Register.

Therefore, the following modified standard conditions will be listed on the permit:

- {2555 modified} The metallic shoe-type seal shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 12 inches above the stored liquid surface. [District Rule 4623]
- {2513 modified} The geometry of the metallic-shoe type seal shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 3 inches for a length of at least 12 inches in the vertical plane above the liquid. [District Rule 4623]

Section 5.4.1 requires internal floating roof tanks to be equipped with seals that meet the criteria set forth in **Section 5.3** (Specifications for External Floating Roof Tanks), except for complying with the requirement specified in **Section 5.3.2.1.3**.

Each tank is of riveted construction and will utilize a mechanical shoe primary seal. Therefore, the applicant must meet all the specifications listed in **Section 5.3.2.2**, except that internal floating roof tanks only require a minimum 18 inches of vertical distance above the stored liquid surface. The following conditions will be placed on each permit to ensure compliance with this section:

- {2534} Gaps between the tank shell and the primary seal shall not exceed 2 1/2 inches. [District Rule 4623]
- {2535} The cumulative length of all primary seal gaps greater than 1 1/2 inches shall not exceed 10% of the circumference of the tank. [District Rule 4623]
- {2536} The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623]

- {2537} No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623]
- {2538} No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623]
- {2539} The cumulative length of all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623]
- {2555 modified} The metallic shoe-type seal shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 12 inches above the stored liquid surface. [District Rule 4623]
- {2513 modified} The geometry of the metallic-shoe type seal shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 3 inches for a length of at least 12 inches in the vertical plane above the liquid. [District Rule 4623]
- {2514} There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. [District Rule 4623]
- {2543} The secondary seal shall allow easy insertion of probes up to 2 1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623]
- {2544} The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623]

Section 5.4.2 lists equivalent seals. These tanks will be equipped with standard seals and will not require the exceptions listed in this section. Therefore this section does not apply.

Section 5.5.1 requires all openings in the roof used for sampling or gauging, except pressure-vacuum valves to be set to within ten (10) percent of the maximum allowable working pressure of the roof, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal, or lid. The cover, seal, or lid shall at all times be in a closed position, with no visible gaps and be gastight, except when the device or appurtenance is in use.

The following condition will be listed on each permit as follows:

- {2517} All openings in the roof used for sampling and gauging, except pressure-vacuum valves which shall be set to within 10% of the maximum allowable working pressure of the roof, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be gas tight, except when the device or appurtenance is in use. [District Rule 4623]

Section 5.5.2.1 requires internal floating roof deck fittings to meet the following requirements:

- {2556 Modified} Each opening in a non-contact internal floating roof, except for automatic bleeder vents (vacuum breaker vents) and rim space vents, shall provide a projection below the liquid surface. [District Rule 4623, and 40 CFR 60.112b(a)(iii)]

- {2557 Modified} Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use. [District Rule 4623, and 40 CFR 60.112b(a)(iv)]
- {2558 Modified} Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. [District Rule 4623, and 40 CFR 60.112b(a)(v)]
- {2559 Modified} Rim vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [District Rule 4623, and 40 CFR 60.112b(a)(vi)]
- {2560 Modified} Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90% of the opening. The fabric cover must be impermeable. [District Rule 4623, and 40 CFR 60.112b(a)(vii)]
- {2561 Modified} Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. The fabric sleeve must be impermeable. [District Rule 4623, and 40 CFR 60.112b(a)(viii)]

Section 5.6 applies to vapor recovery systems. These tanks will not be equipped with vapor recovery; therefore this section is not applicable.

Section 6.1.4 requires the owner or operator perform visual inspections and conduct actual gap measurements according to the timelines specified in this section.

The following conditions will be placed on each permit to ensure compliance with the requirements of this section:

- {2562} The permittee shall visually inspect the internal floating roof, and its appurtenant parts, fittings, etc. and measure the gaps of the primary seal and/or secondary seal prior to filling the tank for newly constructed, repair, or rebuilt internal floating roof tanks. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to filling the tank. [District Rule 4623]
- {2563} The permittee shall visually inspect, through the manholes, roof hatches, or other openings on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of vapors. Any defects found are violations of this rule. [District Rule 4623]
- {2564} The permittee shall conduct actual gap measurements of the primary seal and/or secondary seal at least once every 60 months. [District Rule 4623]

Section 6.2 applies to uncontrolled fixed roof tanks only.

Section 6.3 requires the owner or operator to retain accurate records required by this rule for a period of five years. The following condition will be placed on each permit to ensure compliance with this section:

- All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 1070 and 4623]

Section 6.3.5 requires an operator to submit the reports of the floating roof tank inspections conducted in accordance with the requirements of Section 6.1 to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Sections 5.2 through 5.5. The inspection report for tanks that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and shall be made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of this rule.

The following permit condition will be listed on each permit as follows:

- {2532} Permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of Rule 4623. [District Rule 4623]

Section 6.3.7 requires an operator to maintain the records of the external floating roof or internal floating roof landing activities that are performed pursuant to Sections 5.3.1.3 and 5.4.3. The records shall include information on the TVP, API gravity, and type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. The operator shall keep the records at the facility (or on-site) for a period of five years. The records shall be made available to the APCO upon request.

The following permit conditions will be listed on each permit as follows:

- {2565} Permittee shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the true vapor pressure (TVP), API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623]

Conclusion

These tanks are expected to comply with all requirements of District Rule 4623.

Rule 4624 Transfer of Organic Liquid

The purpose of this rule is to limit VOC emissions from the transfer of organic liquids.

BCT proposes to operate a Class 1 organic liquid transfer facility as defined in the rule (Section 3.8). The liquid transfer facility will be used to unload a variety of light oils. No loading of liquid is proposed.

Section 5.1 lists the requirements for Class 1 transfer facilities and require the transfer operation not to exceed 0.08 lb of VOC per 1,000 gallon transferred. In addition, the transfer of organic fluid must be routed to either a vapor collection and control system (Section 5.1.2.1); a fixed roof or floating roof container that meets the requirements of Rule 4623 (Sections 5.1.2.2 and 5.1.2.3); a pressure vessel with an APCO-approved vapor control system meeting the requirement specified in Rule 4623; or a closed VOC emissions control system.

BCT will transfer the light oil either into internal floating roof tanks or directly into outgoing pipelines. The following conditions will be included on the ATC:

- For this Class 1 organic liquid transfer facility, the emission of VOC from the transfer operation shall not exceed 0.08 pounds per 1,000 gallons of organic liquid transferred. [District Rule 4624]
- All unloaded liquids and gases shall be routed to one of the following systems: a vapor collection and control system; a fixed roof container that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); a floating roof container that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); or a pressure vessel equipped with an APCO-approved vapor recovery system that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); or a closed VOC emission control system. [District Rule 4624]

Section 5.2 lists requirements for a Class 2 organic liquid transfer facility and is not applicable.

Section 5.3 requires transfer operations utilizing a container that meets the control requirements of Rule 4623 to meet the emission control requirements of Sections 5.1 and 5.2 to comply with leak inspection requirements of Section 5.9. These following conditions will ensure compliance with these sections:

- The operator of an organic liquid transfer facility shall inspect the vapor collection system, the vapor disposal system, and each transfer rack handling organic liquids for leaks during transfer at least once every calendar quarter using the test method prescribed in Section 6.3.8 of Rule 4624. [District Rule 4624]
- A floating roof container that meets the applicable control requirements of Section 5.0 of Rule 4623 (Storage of Organic Liquids) shall be considered not leaking when receiving unloaded liquids for compliance with Rule 4624. [District Rule 4624]
- All equipment that is found leaking shall be repaired or replaced within 72 hours. If the leaking component cannot be repaired or replaced within 72 hours, the component shall be taken out of service until such time the component is repaired or replaced. The repaired or replacement equipment shall be reinspected the first time the equipment is in operation after the repair or replacement. [District Rule 4624]

- An operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually provided no leaks were found during the inspections required under provisions of Sections 5.9.1 and 5.9.2 of Rule 4624 during five consecutive quarterly inspections. Upon identification of any leak during an annual inspection the frequency shall revert back to quarterly and the operator shall contact the APCO in writing within 14 days. [District Rule 4624]

Sections 5.4, 5.5, 5.7, and 5.8 apply to loading operations. This facility will not be loading any vessels; therefore these sections do not apply.

Section 5.6 requires the transfer rack to be designed, installed, maintained and operated such that there are no leaks and no excess organic liquid drainage at disconnections. The following condition will ensure compliance with this section:

- Maximum liquid spillage for liquids from organic liquid transfer operation shall not exceed 3.2 milliliters/disconnect based on an average from 3 consecutive disconnects. [District Rules 2201 and 4624]

BCT will be required to keep records of the throughputs of materials unloaded (Section 6.1.3) as stated in the following condition:

- Operator shall keep records of the throughputs of materials transferred, the results of any required leak inspections, and the quantity and type of components in service. [District Rules 2201 and 4624]

Compliance testing requirements of **Section 6.2** for Class 1 Organic Liquid Transfer Facilities (applicable to unloading only) are not required if unloaded liquids/gases are sent to a floating roof container that meets the control requirements specified in Rule 4623. Therefore, the requirements of this section do not apply.

Compliance with this rule is expected.

California Health & Safety Code 42301.6 (School Notice)

The District has verified that this site is not located within 1,000 feet of a school. Therefore, pursuant to California Health and Safety Code 42301.6, a school notice is not required.

California Environmental Quality Act (CEQA)

CEQA requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. The District adopted its *Environmental Review Guidelines* (ERG) in 2001. The basic purposes of CEQA are to:

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities;
- Identify the ways that environmental damage can be avoided or significantly reduced;
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and

- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

Greenhouse Gas (GHG) Significance Determination

It is determined that another agency has prepared an environmental review document for the project. The District is a Responsible Agency for the project because of its discretionary approval power over the project via its Permits Rule (Rule 2010) and New Source Review Rule (Rule 2201), (CEQA Guidelines §15381). As a Responsible Agency, the District is limited to mitigating or avoiding impacts for which it has statutory authority. The District does not have statutory authority for regulating greenhouse gas emissions. The District has determined that the applicant is responsible for implementing greenhouse gas mitigation measures, if any, imposed by the Lead Agency.

District CEQA Findings

The District is a Responsible Agency for the project because of its discretionary approval power over the project via its Permits Rule (Rule 2010) and New Source Review Rule (Rule 2201), (CEQA Guidelines §15381). The District's engineering evaluation of the project (this document) demonstrates that compliance with District rules and permit conditions would reduce Stationary Source emissions from the project to levels below the District's significance thresholds for criteria pollutants. The District has determined that no additional findings are required (CEQA Guidelines §15096(h)).

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Issue ATCs S-8165-1-0, '-2-0 and '-3-0 subject to the permit conditions on the attached draft ATCs in **Appendix A**.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-8165-1-0	3020-05-G	6,300,000 gallon	\$382.00
S-8165-2-0	3020-01-G	6,300,000 gallon	\$382.00
S-8165-3-0	3020-01-H	Maximum of 2,650 elec hp	\$1,030.00

Appendices

- A: Draft ATCs
- B: BACT Guidelines
- C: BACT Analyses
- D: Process Diagram
- E: Tanks 4.0 Summary
- F: HRA Summary
- G: Quarterly Net Emissions Change
- H: Emissions Profiles

APPENDIX A

Draft ATCs

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-8165-1-0

LEGAL OWNER OR OPERATOR: BAKERSFIELD CRUDE TERMINAL, LLC
MAILING ADDRESS: 3020 OLD RANCH PARKWAY
SUITE J 300
SEAL BEACH, CA 90740

LOCATION: SOUTH LAKE ROAD AND SANITAGO ROAD
TAFT, CA

EQUIPMENT DESCRIPTION:

150,000 BBL (6,300,000 GALLON) INTERNAL FLOATING ROOF CRUDE OIL STORAGE TANK WITH METAL SHOE
PRIMARY SEAL AND WIPER SECONDARY SEAL

CONDITIONS

1. {271} All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
2. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Maximum throughput of tank shall not exceed 91,623 bbl/day. [District Rule 2201]
4. Maximum combined throughput of tanks listed on permits S-8165-1 and '-2 shall not exceed 25,550,000 bbl/year. [District Rule 2201]
5. Annual emissions from tanks listed on S-8165-1 and '-2 shall not exceed 18,920 lb-VOC/year. [District Rule 2201]
6. The Reid Vapor Pressure (RVP) of liquid introduced, placed, or stored in the tank shall be less than 11.0 psia. [District Rules 2201 and 4623, and 40 CFR 60.110b(b)]
7. If any shipment of organic liquid with an RVP greater than 8.3 psia is introduced, placed, or stored in this tank in any calendar year, compliance with annual combined emission limit for tanks listed on S-8165-1 and '-2 shall be demonstrated by calculating and maintaining an annual emissions summary using the EPA's TANKS program. [District Rules 2201 and 4623, and 40 CFR 60.110b(b)]

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

David Sadredin, Executive Director, APCO

DRAFT
DAVID WARNER, Director of Permit Services
S-8165-1-0 - Jul 28 2012 11:58 AM - RICKARDK - Joint Inspection Required with RICKARDK

8. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal roof shall be floating on the liquid surface except during initial fill and when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on its legs, the permittee shall notify the APCO in writing at least five days prior to performing the work. [District Rule 4623, and 40 CFR 60.112b(a)(i)]
9. The internal floating roof tank shall be equipped with two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous. [40 CFR 60.112b(a)(ii-B)]
10. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background, except for primary and secondary seals, floating roof deck fittings, and floating roof automatic bleeder vents is a violation of this permit and Rule 4623. [District Rule 4623]
11. {2534} Gaps between the tank shell and the primary seal shall not exceed 2 1/2 inches. [District Rule 4623]
12. {2535} The cumulative length of all primary seal gaps greater than 1 1/2 inches shall not exceed 10% of the circumference of the tank. [District Rule 4623]
13. {2536} The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623]
14. {2537} No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623]
15. {2538} No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623]
16. {2539} The cumulative length of all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623]
17. The metallic shoe-type seal shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 12 inches above the stored liquid surface. [District Rule 4623]
18. The geometry of the metallic-shoe type seal shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 3 inches for a length of at least 12 inches in the vertical plane above the liquid. [District Rule 4623]
19. {2542} There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. [District Rule 4623]
20. {2543} The secondary seal shall allow easy insertion of probes up to 2 1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623]
21. {2544} The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623]
22. {2517} All openings in the roof used for sampling and gauging, except pressure-vacuum valves which shall be set to within 10% of the maximum allowable working pressure of the roof, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be gas tight, except when the device or appurtenance is in use. [District Rule 4623]
23. Each opening in a non-contact internal floating roof, except for automatic bleeder vents (vacuum breaker vents) and rim space vents, shall provide a projection below the liquid surface. [District Rule 4623, and 40 CFR 60.112b(a)(iii)]
24. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use. [District Rule 4623, and 40 CFR 60.112b(a)(iv)]

DRAFT
CONDITIONS CONTINUE ON NEXT PAGE

25. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. [District Rule 4623, and 40 CFR 60.112b(a)(v)]
26. Rim vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [District Rule 4623, and 40 CFR 60.112b(a)(vi)]
27. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90% of the opening. The fabric cover must be impermeable. [District Rule 4623, and 40 CFR 60.112b(a)(vii)]
28. Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. The fabric sleeve must be impermeable. [District Rule 4623, and 40 CFR 60.112b(a)(viii)]
29. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. [40 CFR 60.112b(a)(ix)]
30. {2562} The permittee shall visually inspect the internal floating roof, and its appurtenant parts, fittings, etc. and measure the gaps of the primary seal and/or secondary seal prior to filling the tank for newly constructed, repair, or rebuilt internal floating roof tanks. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to filling the tank. [District Rule 4623]
31. {2563} The permittee shall visually inspect, through the manholes, roof hatches, or other openings on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of vapors. Any defects found are violations of this rule. [District Rule 4623]
2. {2564} The permittee shall conduct actual gap measurements of the primary seal and/or secondary seal at least once every 60 months. [District Rule 4623]
33. {2532} Permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of Rule 4623. [District Rule 4623]
34. {2565} Permittee shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the true vapor pressure (TVP), API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623]
35. Operator shall maintain daily and annual records of the throughput of materials transferred into tank, the results of any required leak inspections, and annual tank emissions if any liquid is introduced, placed, or stored in the tank that has an RVP greater than 8.3 psia. [District Rules 2201 and 4623]
36. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 1070 and 4623]

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-8165-2-0

LEGAL OWNER OR OPERATOR: BAKERSFIELD CRUDE TERMINAL, LLC
MAILING ADDRESS: 3020 OLD RANCH PARKWAY
SUITE J 300
SEAL BEACH, CA 90740

LOCATION: SOUTH LAKE ROAD AND SANITAGO ROAD
TAFT, CA

EQUIPMENT DESCRIPTION:
150,000 BBL (6,300,000 GALLON) INTERNAL FLOATING ROOF CRUDE OIL STORAGE TANK WITH METAL SHOE
PRIMARY SEAL AND WIPER SECONDARY SEAL

CONDITIONS

1. {271} All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
2. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Maximum throughput of tank shall not exceed 91,623 bbl/day. [District Rule 2201]
4. Maximum combined throughput of tanks listed on permits S-8165-1 and '-2 shall not exceed 25,550,000 bbl/year. [District Rule 2201]
5. Annual emissions from tanks listed on S-8165-1 and '-2 shall not exceed 18,920 lb-VOC/year. [District Rule 2201]
6. The Reid Vapor Pressure (RVP) of liquid introduced, placed, or stored in the tank shall be less than 11.0 psia. [District Rules 2201 and 4623, and 40 CFR 60.110b(b)]
7. If any shipment of organic liquid with an RVP greater than 8.3 psia is introduced, placed, or stored in this tank in any calendar year, compliance with annual combined emission limit for tanks listed on S-8165-1 and '-2 shall be demonstrated by calculating and maintaining an annual emissions summary using the EPA's TANKS program. [District Rules 2201 and 4623, and 40 CFR 60.110b(b)]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director APCO

DRAFT
DAVID WARNER, Director of Permit Services

S-8165-2-0 : Jul 26 2012 10:58AM - RICKARDK : Joint Inspection Required with RICKARDK

8. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal roof shall be floating on the liquid surface except during initial fill and when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on its legs, the permittee shall notify the APCO in writing at least five days prior to performing the work. [District Rule 4623, and 40 CFR 60.112b(a)(i)]
9. The internal floating roof tank shall be equipped with two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous. [40 CFR 60.112b(a)(ii-B)]
10. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background, except for primary and secondary seals, floating roof deck fittings, and floating roof automatic bleeder vents is a violation of this permit and Rule 4623. [District Rule 4623]
11. {2534} Gaps between the tank shell and the primary seal shall not exceed 2 1/2 inches. [District Rule 4623]
12. {2535} The cumulative length of all primary seal gaps greater than 1 1/2 inches shall not exceed 10% of the circumference of the tank. [District Rule 4623]
13. {2536} The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623]
14. {2537} No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623]
15. {2538} No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623]
16. {2539} The cumulative length of all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623]
17. The metallic shoe-type seal shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 12 inches above the stored liquid surface. [District Rule 4623]
18. The geometry of the metallic-shoe type seal shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 3 inches for a length of at least 12 inches in the vertical plane above the liquid. [District Rule 4623]
19. {2542} There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. [District Rule 4623]
20. {2543} The secondary seal shall allow easy insertion of probes up to 2 1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623]
21. {2544} The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623]
22. {2517} All openings in the roof used for sampling and gauging, except pressure-vacuum valves which shall be set to within 10% of the maximum allowable working pressure of the roof, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be gas tight, except when the device or appurtenance is in use. [District Rule 4623]
23. Each opening in a non-contact internal floating roof, except for automatic bleeder vents (vacuum breaker vents) and rim space vents, shall provide a projection below the liquid surface. [District Rule 4623, and 40 CFR 60.112b(a)(iii)]
24. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use. [District Rule 4623, and 40 CFR 60.112b(a)(iv)]

CONDITIONS CONTINUE ON NEXT PAGE

25. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. [District Rule 4623, and 40 CFR 60.112b(a)(v)]
26. Rim vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [District Rule 4623, and 40 CFR 60.112b(a)(vi)]
27. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90% of the opening. The fabric cover must be impermeable. [District Rule 4623, and 40 CFR 60.112b(a)(vii)]
28. Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. The fabric sleeve must be impermeable. [District Rule 4623, and 40 CFR 60.112b(a)(viii)]
29. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. [40 CFR 60.112b(a)(ix)]
30. {2562} The permittee shall visually inspect the internal floating roof, and its appurtenant parts, fittings, etc. and measure the gaps of the primary seal and/or secondary seal prior to filling the tank for newly constructed, repair, or rebuilt internal floating roof tanks. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to filling the tank. [District Rule 4623]
31. {2563} The permittee shall visually inspect, through the manholes, roof hatches, or other openings on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of vapors. Any defects found are violations of this rule. [District Rule 4623]
32. {2564} The permittee shall conduct actual gap measurements of the primary seal and/or secondary seal at least once every 60 months. [District Rule 4623]
33. {2532} Permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of Rule 4623. [District Rule 4623]
34. {2565} Permittee shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the true vapor pressure (TVP), API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623]
35. Operator shall maintain daily and annual records of the throughput of materials transferred into tank, the results of any required leak inspections, and annual tank emissions if any liquid is introduced, placed, or stored in the tank that has an RVP greater than 8.3 psia. [District Rules 2201 and 4623]
36. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 1070 and 4623]

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-8165-3-0

LEGAL OWNER OR OPERATOR: BAKERSFIELD CRUDE TERMINAL, LLC
MAILING ADDRESS: 3020 OLD RANCH PARKWAY
SUITE J 300
SEAL BEACH, CA 90740

LOCATION: SOUTH LAKE ROAD AND SANITAGO ROAD
TAFT, CA

EQUIPMENT DESCRIPTION:
ORGANIC LIQUID TRANSFER OPERATION WITH LIGHT CRUDE OIL RAILCAR UNLOADING RACK AND ASSOCIATED OFFLOADING, TRANSFER AND BOOSTER PUMPS

CONDITIONS

1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
There shall be no more than 208 disconnects per day and 75,920 disconnects per year. [District Rule 2201]
3. Fugitive emissions from components shall not exceed 1.7 lb-VOC/day nor 617 lb-VOC/year based on EPA's "Marketing Terminal Average Emission Factors," Table 2-3 of EPA Bulletin 453/R-95-017, Protocol for Equipment Leak Emission Estimates. [District Rule 2201]
4. Loading of any material into railcars is not permitted. [District Rule 2201]
5. Maximum liquid spillage for liquids from organic liquid transfer operation shall not exceed 3.2 milliliters/disconnect based on an average from 3 consecutive disconnects. [District Rules 2201 and 4624]
6. For this Class I organic liquid transfer facility, the emission of VOC from the transfer operation shall not exceed 0.08 pounds per 1,000 gallons of organic liquid transferred. [District Rule 4624]
7. All unloaded liquids and gases shall be routed to one of the following systems: a vapor collection and control system; a fixed roof container that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); a floating roof container that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); or a pressure vessel equipped with an APCO-approved vapor recovery system that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); or a closed VOC emission control system. [District Rule 4624]

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

ved Sadredin, Executive Director, APCO

DRAFT

DAVID WARNER, Director of Permit Services
S-8165-3-0; Jul 26 2012 10:58AM - RICKARDK : Joint Inspection Required with RICKARDK

8. Components serving this operation shall be maintained in a leak-free condition. [District Rule 2201]
9. A leak is defined as the dripping of VOC-containing liquid at a rate of more than three (3) drops per minute; or for organic liquids other than gasoline, the detection of any gaseous or vapor emissions with a concentration of VOC greater than 1,000 ppmv above a background as methane when measured in accordance with the test method in Section 6.3.7; gasoline, a concentration of VOC greater than 10,000 ppmv, as methane, above background when measured in accordance with the test method in Section 6.3.7. Any liquid or gas coming from a component undergoing repair or replacement, or during sampling of process fluid from equipment into a container is not considered a leak provided such activities are accomplished as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rules 2201 and 4624]
10. The operator of an organic liquid transfer facility shall inspect the vapor collection system, the vapor disposal system, and each transfer rack handling organic liquids for leaks during transfer at least once every calendar quarter using the test method prescribed in Section 6.3.8 of Rule 4624. [District Rule 4624]
11. A floating roof container that meets the applicable control requirements of Section 5.0 of Rule 4623 (Storage of Organic Liquids) shall be considered not leaking when receiving unloaded liquids for compliance with Rule 4624. [District Rule 4624]
12. All equipment that is found leaking shall be repaired or replaced within 72 hours. If the leaking component cannot be repaired or replaced within 72 hours, the component shall be taken out of service until such time the component is repaired or replaced. The repaired or replacement equipment shall be reinspected the first time the equipment is in operation after the repair or replacement. [District Rule 4624]
13. An operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually provided no leaks were found during the inspections required under provisions of Sections 5.9.1 and 5.9.2 of Rule 4624 during five consecutive quarterly inspections. Upon identification of any leak during an annual inspection the frequency shall revert back to quarterly and the operator shall contact the APCO in writing within 14 days. [District Rule 4624]
14. Daily and annual records of the throughputs of materials transferred, the results of any required leak inspections, and the quantity and type of components in service shall be maintained. [District Rules 2201 and 4624]
15. Daily and annual records of the number of disconnects shall be maintained. [District Rule 2201]
16. Permit holder shall maintain accurate component count and resultant emissions according to EPA's "Marketing Terminal Average Emission Factors," Table 2-3 of EPA Bulletin 453/R-95-017, Protocol for Equipment Leak Emission Estimates. [District Rule 2201]
17. All records required by this permit shall be retained for a period of at least 5 years and shall be made available to the District upon request. [District Rules 1070 and 4624]

DRAFT

APPENDIX B

BACT Guidelines

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 7.1.14*

Last Update 9/21/2006

Light Crude Oil Unloading Rack

Pollutant	Achieved In Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
VOC	use of dry-break couplers or equivalent on unloading lines with an average disconnect loss of no greater than 10 ml liquid per disconnect, and fugitive components subject to Rules 4409 or 4455 as applicable	use of dry-break couplers or equivalent on unloading lines with an average disconnect loss of no greater than 8 ml liquid per disconnect, and fugitive components subject to Rules 4409 or 4455 as applicable	

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

***This is a Summary Page for this Class of Source**

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 7.3.3*

Last Update 10/1/2002

**Petroleum and Petrochemical Production - Floating Roof Organic
Liquid Storage or Processing Tank, = or > 471 bbl Tank capacity, = or > 0.5 psia
TVP**

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
VOC	95% control (Primary metal shoe seal with secondary wiper seal, or equal)	95% Control (Dual wiper seal with drip curtain or primary metal shoe seal with secondary wiper seal, or equal.)	

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

***This is a Summary Page for this Class of Source**

APPENDIX C

BACT Analyses

Internal Floating Roof Tank Top Down BACT Analysis

1. BACT Analysis for VOC Emissions:

a. Step 1 - Identify all control technologies

The SJVUAPCD BACT Clearinghouse guideline 7.3.3, 4th quarter 2002, identifies BACT for VOC emissions from a floating roof organic liquid storage tank ≥ 471 bbl or ≥ 0.5 psia TVP as follows:

- 1) 95% Control (Dual wiper seal, with drip curtain or primary metal shoe seal with secondary wiper seal, or equal.) – Technologically Feasible
- 2) 95% Control (Primary metal shoe seal with secondary wiper seal, or equal). – Achieved in Practice

b. Step 2 - Eliminate technologically infeasible options

There are no technologically infeasible options to eliminate from step 1.

c. Step 3 - Rank remaining options by control effectiveness

- 1) 95% Control (Dual wiper seal, with drip curtain or primary metal shoe seal with secondary wiper seal, or equal.) – Technologically Feasible
- 2) 95% Control (Primary metal shoe seal with secondary wiper seal, or equal). – Achieved in Practice

d. Step 4 - Cost Effectiveness Analysis

The applicant has proposed installing two internal floating roof tanks equipped with a primary metal shoe seal with secondary wiper seal. Since these technologies have the same expected control efficiencies and a primary metal shoe seal with secondary wiper seal is both achieved in practice and technologically feasible, it will be considered the most effective option and a cost effective analysis will not be necessary.

e. Step 5 – Selection of BACT

The proposed use of an internal floating roof equipped with a primary metal shoe seal with secondary wiper seal resulting in 95% VOC emissions control efficiency satisfies BACT requirements for this operation.

Unloading Rack Top Down BACT Analysis

1. BACT Analysis for VOC Emissions:

a. Step 1 - Identify all control technologies

The SJVUAPCD BACT Clearinghouse guideline 7.1.14, 3rd quarter 2006, identifies BACT for VOC emissions from a light crude oil unloading rack as follows:

- 1) Use of dry-break couplers or equivalent on unloading lines with an average disconnect loss of no greater than 8 ml liquid per disconnect, and fugitive components subject to Rules 4409 or 4455 as applicable – Technologically Feasible
- 2) Use of dry-break couplers or equivalent on unloading lines with an average disconnect loss of no greater than 10 ml liquid per disconnect, and fugitive components subject to Rules 4409 or 4455 as applicable – Achieved in Practice

b. Step 2 - Eliminate technologically infeasible options

There are no technologically infeasible options to eliminate from step 1.

c. Step 3 - Rank remaining options by control effectiveness

- 1) Use of dry-break couplers or equivalent on unloading lines with an average disconnect loss of no greater than 8 ml liquid per disconnect, and fugitive components subject to Rules 4409 or 4455 as applicable – Technologically Feasible
- 2) Use of dry-break couplers or equivalent on unloading lines with an average disconnect loss of no greater than 10 ml liquid per disconnect, and fugitive components subject to Rules 4409 or 4455 as applicable – Achieved in Practice

d. Step 4 - Cost Effectiveness Analysis

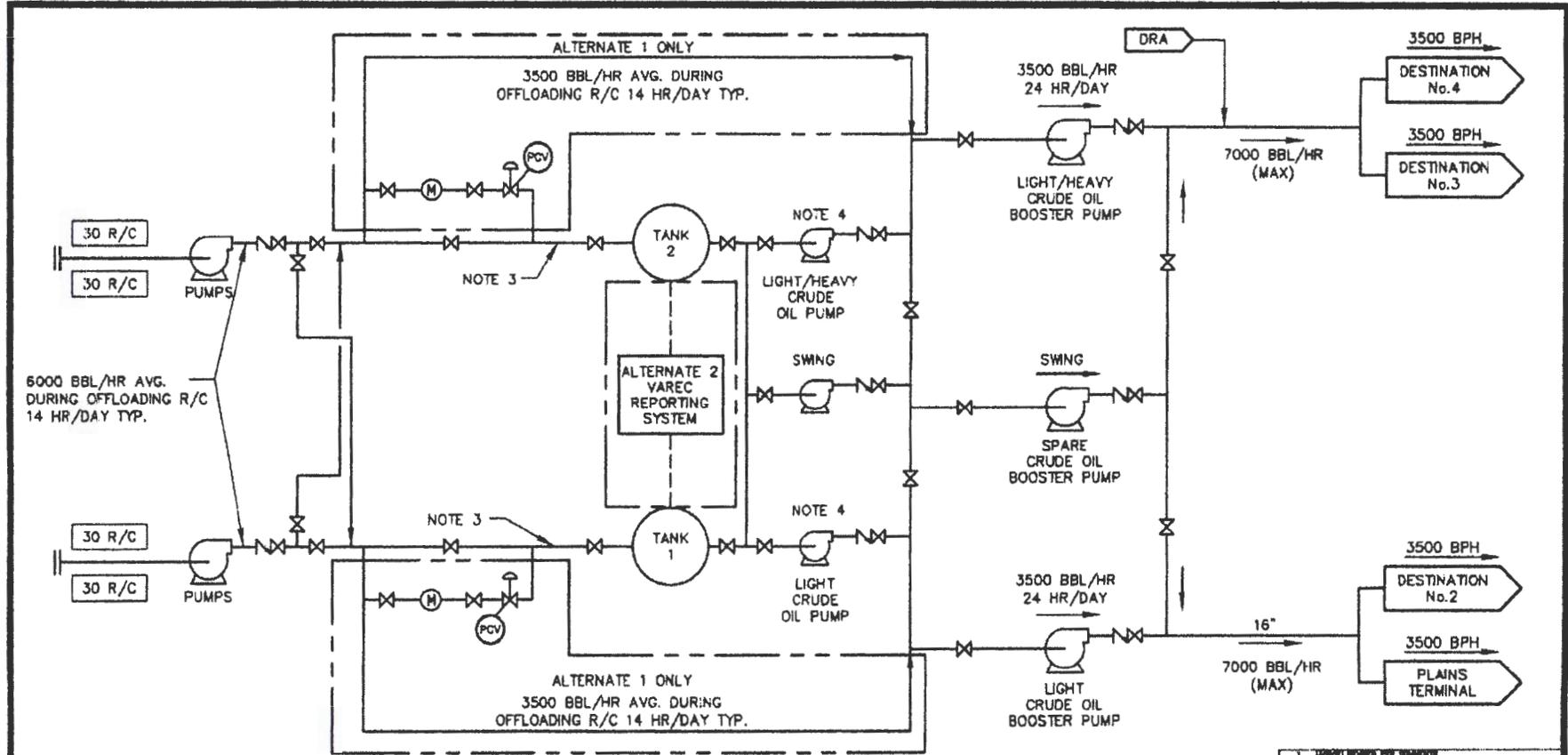
The applicant is proposing dry break couplers with an average disconnect loss of no greater than 8 ml liquid per disconnect. This is the highest ranking technologically feasible option, therefore a cost effective analysis will not be necessary.

e. Step 5 – Selection of BACT

The proposed use of dry break couplers with an average disconnect loss of no greater than 8 ml liquid per disconnect (neither of Rules 4409 or 4455 are applicable to this operation) satisfies BACT for this operation.

APPENDIX D

Process Diagram



NOTES:

1. CHANGE OF CUSTODY TO BE DETERMINED.
2. NET FLOW TO & FROM TANKS IS 70,000 BFD FOR ALTERNATIVES 1 & 2.
3. ALTERNATE 1 IS 5000 BBL/HR TO ONE TANK ONLY DURING OFFLOADING R/C; ALTERNATE 2 IS 12,000 BBL/HR TO ONE TANK ONLY DURING OFFLOADING R/C.
4. ALTERNATE 1 IS 3500 BBL/HR PER PUMP WHEN NOT OFFLOADING R/C; ALTERNATE 2 IS 3500 BBL/HR PER PUMP 24 HOURS/DAY, BASIS IS 2 PUMPS OPERATING.

REVISIONS FOR REVISIONS 1 12/28/82 REVISION FOR REVIEW & COMMENT	
<h1>RPMS</h1> <h2>CONSULTING ENGINEERS</h2>	
1 HENDERSON DRIVE, HENRIK TOWNSHIP, N. J. 08033	
U.S. DEVELOPMENT GROUP SANDERSFIELD CRUDE TERMINAL FLOW DIAGRAM	
DESIGNED BY PWT	CHECKED BY YJC
DATE 5/1/78	DRAWING NO. 6177
PREPARED BY ROBERT K. PINKA, P.E.	
6177-P11	

6177P11.dwg Sheet 02/14/82 18:20

APPENDIX E

Tanks 4.0 Summary

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Identification and Physical Characteristics

Identification

User Identification: BCT 150,000 bbl tanks
 City: Bakersfield
 State: California
 Company:
 Type of Tank: Internal Floating Roof Tank
 Description:

Tank Dimensions

Diameter (ft): 150.00
 Volume (gallons): 6,300,000.00
 Turnovers: 85.17
 Self Supp. Roof? (y/n): N
 No. of Columns: 9.00
 Eff. Col. Diam. (ft): 0.70

Paint Characteristics

Internal Shell Condition: Light Rust
 Shell Color/Shade: White/White
 Shell Condition: Good
 Roof Color/Shade: White/White
 Roof Condition: Good

Rim-Seal System

Primary Seal: Mechanical Shoe
 Secondary Seal: Rim-mounted

Deck Characteristics

Deck Fitting Category: Typical
 Deck Type: Bolted
 Construction: Sheet
 Deck Seam: Sheet: 5 Ft Wide
 Deck Seam Len. (ft): 3,534.28

Deck Fitting/Status

Quantity

Access Hatch (24-in. Diam.)/Unbolted Cover, Ungasketed	1
Automatic Gauge Float Well/Unbolted Cover, Ungasketed	1
Column Well (24-in. Diam.)/Built-Up Col.-Sliding Cover, Ungask.	9
Ladder Well (36-in. Diam.)/Sliding Cover, Ungasketed	1
Roof Leg or Hanger Well/Adjustable	58
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1
Stub Drain (1-in. Diameter)/Slit Fabric Seal 10% Open	180
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1

Meteorological Data used in Emissions Calculations: Bakersfield, California (Avg Atmospheric Pressure = 14.47 psia)

TANKS 4.0.9d
Emissions Report - Detail Format
Liquid Contents of Storage Tank

BCT 150,000 bbl tanks - Internal Floating Roof Tank
Bakersfield, California

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weight	Liquid Molar Fract.	Vapor Molar Fract.	Mol Weight	Basis for Vapor Pressure Calculations
		Avg	Min	Max		Avg	Min	Max					
Crude oil (RVP 8.3)	AR	67.63	61.25	74.00	65.42	6.5745	N/A	N/A	50.0000			207.00	Option 4, RVP=8.3

TANKS 4.0.9d
Emissions Report - Detail Format
Detail Calculations (AP-42)

BCT 160,000 bbl tanks - Internal Floating Roof Tank
Bakersfield, California

Annual Emission Calculations

Rim Seal Losses (lb):	270.6152
Seal Factor A (lb-mole/ft-yr):	0.8000
Seal Factor B (lb-mole/ft-yr (mph) ^{1.75}):	0.4000
Value of Vapor Pressure Function:	0.1503
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	8.5745
Tank Diameter (ft):	150.0000
Vapor Molecular Weight (lb/lb-mole):	50.0000
Product Factor:	0.4000
Withdrawal Losses (lb):	3,594.0028
Number of Columns:	9.0000
Effective Column Diameter (ft):	0.7000
Annual Net Throughput (gal/yr):	536,650,000.0000
Shell Clingage Factor (bbl/1000 sqft):	0.0090
Average Organic Liquid Density (lb/gal):	7.1000
Tank Diameter (ft):	150.0000
Deck Fitting Losses (lb):	3,731.3068
Value of Vapor Pressure Function:	0.1503
Vapor Molecular Weight (lb/lb-mole):	50.0000
Product Factor:	0.4000
Tot. Roof Fitting Loss Fact (lb-mole/yr):	1,241.4000
Deck Seam Losses (lb):	1,663.8088
Deck Seam Length (ft):	3,534.2900
Deck Seam Losses per Unit Length Factor (lb-mole/ft-yr):	0.1400
Deck Seam Length Factor (ft ²):	0.2000
Tank Diameter (ft):	150.0000
Vapor Molecular Weight (lb/lb-mole):	50.0000
Product Factor:	0.4000
Total Losses (lb):	8,460.4205

Roof Fitting/Status	Quantity	KFa (lb-mole/yr)	Roof Fitting Loss Factors KFB (lb-mole/yr (mph) ^{1.75})	m	Losses (lb)
Access Hatch (24-in. Diam.)/Unbolted Cover, Ungasketed	1	36.00	5.90	1.20	108.2061
Automatic Gauge Float Well/Unbolted Cover, Ungasketed	1	14.00	5.40	1.10	42.0801
Column Well (24-in. Diam.)/Ball-Up Col - Sliding Cover, Ungasketed	9	47.00	0.00	0.00	1,271.4212
Ladder Well (30-in. Diam.)/Sliding Cover, Ungasketed	1	78.00	0.00	0.00	228.4350
Roof Leg or Hanger Well/Adjustable	58	7.90	0.00	0.00	1,377.2227
Sample Pipe or Well (24-in. Diam.)/Silt Fabric Seal 10% Open	1	12.00	0.00	0.00	36.0687
Shut-Down (1-in. Diameter)/	180	1.20	0.00	0.00	648.2364
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gasketed	1	6.20	1.70	0.94	18.6355

**TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals**

Emissions Report for: Annual

**BCT 150,000 bbl tanks - Internal Floating Roof Tank
Bakersfield, California**

Components	Losses(lbs)				Total Emissions
	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	
Crude oil (RVP 8.3)	270.52	3,564.98	3,731.31	1,893.61	9,460.42

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Identification and Physical Characteristics

Identification

User Identification: BCT 150,000 bbl tanks
 City: Bakersfield
 State: California
 Company:
 Type of Tank: Internal Floating Roof Tank
 Description:

Tank Dimensions

Diameter (ft): 150.00
 Volume (gallons): 6,300,000.00
 Turnovers: 85.17
 Self Supp. Roof? (y/n): N
 No. of Columns: 9.00
 Eff. Col. Diam. (ft): 0.70

Paint Characteristics

Internal Shell Condition: Light Rust
 Shell Color/Shade: White/White
 Shell Condition: Good
 Roof Color/Shade: White/White
 Roof Condition: Good

Rim-Seal System

Primary Seal: Mechanical Shoe
 Secondary Seal: Rim-mounted

Deck Characteristics

Deck Fitting Category: Typical
 Deck Type: Bolted
 Construction: Sheet
 Deck Seam: Sheet: 5 Ft Wide
 Deck Seam Len. (ft): 3,534.29

Deck Fitting/Status

Quantity

Access Hatch (24-in. Diam./Unbolted Cover, Ungasketed)	1
Automatic Gauge Float Well/Unbolted Cover, Ungasketed	1
Column Well (24-in. Diam./Built-Up Col.-Sliding Cover, Ungask.	9
Ladder Well (36-in. Diam./Sliding Cover, Ungasketed)	1
Roof Leg or Hanger Well/Adjustable	58
Sample Pipe or Well (24-in. Diam./Slit Fabric Seal 10% Open	1
Stub Drain (1-in. Diameter)/Slit Fabric Seal 10% Open	180
Vacuum Breaker (10-in. Diam./Weighted Mech. Actuation, Gask.	1

Meteorological Data used in Emissions Calculations: Bakersfield, California (Avg Atmospheric Pressure = 14.47 psia)

**TANKS 4.0.9d
Emissions Report - Detail Format
Liquid Contents of Storage Tank**

**BCT 150,000 bbl tanks - Internal Floating Roof Tank
Bakersfield, California**

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.		Avg.	Min.	Max.					
Crude oil (RVP 11.0)	All	67.63	61.25	74.00	65.42	9.5656	N/A	N/A	50.0000			207.00	Option 4: RVP=11

TANKS 4.0.9d
Emissions Report - Detail Format
Detail Calculations (AP-42)

BCT 150,000 bbl tanks - Internal Floating Roof Tank
Bakersfield, California

Annual Emission Calculations

Run Seal Losses (lb):	477.0194
Seal Factor A (lb-mole/ft-yr):	0.8000
Seal Factor B (lb-mole/ft-yr (mph ² /m):	0.4000
Value of Vapor Pressure Function:	0.3650
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.5859
Tank Diameter (ft):	150.0000
Vapor Molecular Weight (lb/lb-mole):	50.0000
Product Factor:	0.4000
Withdrawal Losses (lb):	3,564.9988
Number of Columns:	9.0000
Effective Column Diameter (ft):	0.7000
Annual Net Throughput (gal/yr.):	536,530,000.0000
Shell Circumference Factor (tbl/1000 sq/ft):	0.0080
Average Organic Liquid Density (lb/gal):	7.1000
Tank Diameter (ft):	150.0000
Deck Fitting Losses (lb):	6,570.8877
Value of Vapor Pressure Function:	0.3650
Vapor Molecular Weight (lb/lb-mole):	50.0000
Product Factor:	0.4000
Tot. Roof Fitting Loss Fact (lb-mole/yr):	1,241.4000
Deck Seam Losses (lb):	3,338.1370
Deck Seam Length (ft):	3,334.2900
Deck Seam Loss per Unit Length Factor (lb-mole/R-yr):	0.1400
Deck Seam Length Factor/Weight:	0.2000
Tank Diameter (ft):	150.0000
Vapor Molecular Weight (lb/lb-mole):	50.0000
Product Factor:	0.4000
Total Losses (lb):	15,960.8058

Roof Fitting/Status	Quantity	KFa(lb-mole/yr)	Roof Fitting Loss Factors KFB(lb-mole/yr mph ² /m)	m	Losses(lb)
Access Hatch (24-in. Diam.)/Unbolted Cover, Ungasketed	1	36.00	5.80	1.20	190.8078
Automatic Gauge Float Well/Unbolted Cover, Ungasketed	1	14.00	5.40	1.10	74.2030
Column Well (24 in. Diam.)/Burr-Up Col.-Sliding Cover, Ungask	9	47.00	0.00	0.00	2,241.9912
Ladder Well (36-in. Diam.)/Sliding Cover, Ungasketed	1	78.00	0.00	0.00	482.8154
Roof Leg or Hanger Well/Adjustable	58	7.90	0.00	0.00	2,438.5588
Sample Pipe or Well (24-in. Diam.)/Silt Fabric Seal 10% Open	1	12.00	0.00	0.00	63.6026
Stub Drain (1 in. Diameter)	180	1.20	0.00	0.00	1,144.8466
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1	6.20	1.20	0.94	32.8813

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: Annual

BCT 150,000 bbl tanks - Internal Floating Roof Tank
Bakersfield, California

Components	Losses(lbs)				Total Emissions
	Rim Seal Loss	Withdrawal Loss	Deck Fitting Loss	Deck Seam Loss	
Crude oil (RVP 11.0)	477.02	3,564.99	6,579.69	3,339.14	13,960.84

APPENDIX F

HRA Summary

San Joaquin Valley Air Pollution Control District Risk Management Review

To: Kristopher Rickards – Permit Services
 From: Kou Thao – Technical Services
 Date: 7-20-12
 Facility Name: Bakersfield Crude
 Location: South Lake Rd & Santiago Rd
 Application #(s): S-8165- 1-0, -2-0, -3-0
 Project #: S-1121576

A. RMR SUMMARY

RMR Summary					
Categories	Crude oil tank (Unit 1-0)	Crude oil tank (Unit 2-0)	Loading rack (Unit 3-0)	Project Totals	Facility Totals
Prioritization Score	1.43	1.43	0.14	2.99	2.99
Acute Hazard Index	0.00	0.00	0.00	0.00	0.00
Chronic Hazard Index	0.01	0.01	0.00	0.02	0.02
Maximum Individual Cancer Risk	2.74E-08	3.74E-08	7.63E-07	8.28E-07	8.28E-07
T-BACT Required?	No	No	No		
Special Permit Conditions?	No	No	No		

Proposed Permit Conditions

To ensure that human health risks will not exceed District allowable levels; the following permit conditions must be included for:

Unit # 1-0, -2-0, & -3-0

No special conditions are required.

B. RMR REPORT

I. Project Description

Technical Services received a request on June 17, 2012, to perform a Risk Management Review for a proposed installation of two 150,000 BBL internal floating roof crude oil tanks and one unloading rack.

II. Analysis

Technical Services performed a health risk assessment using the Toxic Fugitive Emissions from Oilfield Equipment spreadsheet. The cumulative prioritization scores were greater than 1.0, thus modeling was conducted using the AERMOD model, with the parameters outlined below and meteorological data for 2005-2009 from Bakersfield to determine the dispersion factors (i.e., the predicted concentration or X divided by the normalized source strength or Q) for a receptor grid.

Analysis Parameters Unit 1-0 & 2-0 each			
Source Type	Area	Location Type	Urban
Tank diameter(m)	45.7	Closest Receptor (m)	243
		Type of Receptor	Business
Release Height (m)	14.6	Pollutant Type	VOC
		Emission Rate hourly	4.17 lb/hr
		Emission Rate annual	9,460 lb/hr

Analysis Parameters Unit -3-0			
Source Type	Area	Location Type	Urban
X-Length (m)	548.6	Closest Receptor (m)	243
Y-Length (m)	13.4	Type of Receptor	Business
Release Height (m)	1	Pollutant Type	VOC
		Emission Rate hourly	0.12 lb/hr
		Emission Rate annual	1,072 lb/hr

III. Conclusion

The acute and chronic indices are below 1.0 and the cancer risk factor associated with the project is less than 1.0 in a million. **In accordance with the District's Risk Management Policy, the project is approved without Toxic Best Available Control Technology (T-BACT).**

To ensure that human health risks will not exceed District allowable levels; the permit conditions listed on page 1 of this report must be included for this proposed unit.

These conclusions are based on the data provided by the applicant and the project engineer. Therefore, this analysis is valid only as long as the proposed data and parameters do not change.

IV. Attachments

- A. RMR request from the project engineer
- B. Additional information from the applicant/project engineer
- C. Toxic emissions summary
- D. Prioritization score
- E. Facility Summary

APPENDIX G

Quarterly Net Emissions Change

Quarterly Net Emissions Change (QNEC)

The Quarterly Net Emissions Change is used to complete the emission profile screen for the District's PAS database. The QNEC shall be calculated as follows:

$QNEC = PE2 - PE1$, where:

QNEC = Quarterly Net Emissions Change for each emissions unit, lb/qtr.

PE2 = Post Project Potential to Emit for each emissions unit, lb/qtr.

PE1 = Pre-Project Potential to Emit for each emissions unit, lb/qtr.

Using the values in Sections VII.C.2 and VII.C.6 in the evaluation above, quarterly PE2 and quarterly PE1 can be calculated as follows:

$PE2_{quarterly} = PE2_{annual} \div 4 \text{ quarters/year}$

$PE1_{quarterly} = PE1_{annual} \div 4 \text{ quarters/year}$

S-8163-1-0 & '-2-0 Quarterly NEC [QNEC]			
	PE2 (lb/qtr)	PE1 (lb/qtr)	QNEC (lb/qtr)
NO _x	0	0	0
SO _x	0	0	0
PM ₁₀	0	0	0
CO	0	0	0
VOC	2,365	0	2,365

S-8163-3-0 Quarterly NEC [QNEC]			
	PE2 (lb/qtr)	PE1 (lb/qtr)	QNEC (lb/qtr)
NO _x	0	0	0
SO _x	0	0	0
PM ₁₀	0	0	0
CO	0	0	0
VOC	268	0	268

APPENDIX H

Emissions Profiles

Permit #: S-8165-1-0	Last Updated
Facility: BAKERSFIELD CRUDE TERMINAL, LLC	07/18/2012 RICKARDK

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	0.0	0.0	0.0	0.0	9460.0
Daily Emis. Limit (lb/Day)					100.0
Quarterly Net Emissions Change (lb/Qtr)					
Q1:					2365.0
Q2:					2365.0
Q3:					2365.0
Q4:					2365.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Permit #: S-8165-2-0	Last Updated
Facility: BAKERSFIELD CRUDE TERMINAL, LLC	07/18/2012 RICKARDK

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	0.0	0.0	0.0	0.0	9460.0
Daily Emis. Limit (lb/Day)					100.0
Quarterly Net Emissions Change (lb/Qtr)					
Q1:					2365.0
Q2:					2365.0
Q3:					2365.0
Q4:					2365.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Permit #: S-8165-3-0	Last Updated
Facility: BAKERSFIELD CRUDE TERMINAL, LLC	07/18/2012 RICKARDK

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	0.0	0.0	0.0	0.0	1072.0
Daily Emis. Limit (lb/Day)					2.9
Quarterly Net Emissions Change (lb/Qtr)					
Q1:					268.0
Q2:					268.0
Q3:					268.0
Q4:					268.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

D

Report of Analysis

Client: Phillips 66 Company 600 Dairy Ashford Road, Houston, TX, 77079, United States Job Location: Edmonton, AB Canada Our Reference Number: CA230-0000115	Client Reference Number: None
---	--------------------------------------

Sample ID: CA230-000115-3 Sample Designated As: Gibsons-OSH Vessel/Location: Gibsons-Hardisty, AB Representing: Train ID 569-303 / Batch ID USDOSH-18-03 Attention: Timothy Baria	Date Taken: January 10, 2015 Date Submitted: January 12, 2015 Date Tested: 12-Jan-15 Drawn By: Intertek Edmonton
--	---

METHOD	TEST	SPECIFICATIONS	RESULTS	UNITS
ASTM D6377	Determination of Vapor Pressure VPCRP _{37.8°C}	Limit 10 PSI	5.8	PSI
ASTM D5705 MOD	H ₂ S in Vapor Phase - 77F Bath	Limit 10 ppm	104	ppm
ASTM D97	Pour Point	<50 °F	<-42	°F
ASTM D323	Vapor Pressure - Reid Method (RVP)	≤34.9 API Shall not Exceed 8.0 PSI >35.0 API Shall not Exceed 10.0 PSI	1.9 ⁽¹⁾	PSI
ASTM D7042	Kinematic Viscosity by Stabinger Viscometer @ 7.92°C (Avg. Load Temp.)	<350 cSt	213.1	cSt

⁽¹⁾ Test performed by Intertek Samia



Nicole Pawlik, Laboratory Manager

The information contained herein is based on laboratory tests and observations performed by Intertek. This sample (or these samples) was or were submitted by the client solely for testing. Intertek disclaims any and all liability for damage or injury which results in the use of the information contained herein; and nothing contained herein shall constitute a guarantee, warranty or representation by Intertek with respect to the accuracy of the information, the sample, products or items described, or their suitability for use for any specific purpose. This report is for the exclusive use of the client and may only be reproduced in full by written permission of Intertek. Unless otherwise instructed, all samples pertaining to this report will be discarded 45 days after the issuing date of this report.

569 303

*****DANGEROUS*** Shipping Document - Straight Bill Of Lading

Shippers BOL No. 000512HP Revision 0

E.R.P./P.I.U: 2-1933-026 EMERGENCY PLAN Phone:8002650212
 24-HOUR NUMBER CANADA - CCN671546-6139966666
 FOR EMERGENCY CONTACT IN U.S. CALL CCN671546 800-424-9300

Car No: MULTI-CARS Bill Type: REVENUE Ship Date: 01/10/2015
 Destination: LEVEE, CA Origin: ROSYTH, AB
 Routing: CPRS-KINGS-UP
 Switching Info:

CareOf/ShipTo
 BAKERSFIELD CRUDE TERMINAL LLC
 2710 SANTIAGO ROAD
 LEVEE, CA 93268

Shipper
 PHILLIPS 66 COMPANY
 423051 RANGE RD 92
 HARDISTY, AB T0B 1V0

Consignee
 PHILLIPS 66 COMPANY
 411 S KEELER AVE
 SUITE G
 BARTLESVILLE, OK 74004

Freight Charges
 PHILLIPS 66 COMPANY
 PO BOX 8575
 BARTLESVILLE, OK 74005

Lessee: Sect 7: NO Freight: PREPAID Fob: Rule-11: Y

Reference No
 BS&W - 0.0500

11- PHILLIPS 66 COMPANY-BARTLESVILLE, OK
 XU- CHARTER BROKERAGE LLC-NEW YORK, NY

RR Contract:

Product: PETROLEUM CRUDE OIL
 STCC Code: 4910165
HAZMAT Information
 UN1267// PETROLEUM CRUDE OIL//3//PG1

Placards: PLACARDED FLAMMABLE

Special Commodity Ind:

No. Of Packages: 97 RAILCARS Seal No's:

Car Capacity Gallons	Outage			Loaded - ORIGIN WEIGHTS							CERTIFIED OR TARIFF WEIGHT (SUBJECT TO CORRECTION)
	TABLE	INS	GAL+VC	GALLONS	UM	GRAVITY	TEMP	VCF	GALS@60	LBS/GAL	
									2,145,424		20,212,032
									2,576,529		20,212,032
LITRES 9,753,223 KILOGRAMS 9168024											

Comments:

61345.93 bbl

Shippers BOL Number
000512HP / O

Product: PETROLEUM CRUDE OIL												
Car Capacity Gallons	Outage			Loaded							CERTIFIED OR TARIFF WEIGHT (SUBJECT TO CORRECTION)	
	TABLE	INS	GAL@VC	GALLONS	UM	GRAVITY	TEMP	VCF	GALS@60	LBS/GAL		
Car No. PPRX 663001											Kilograms: 94322	
26,429	IG	T14006-1	25.000	4,377	21,904	IG	19.00414	41.6	1.00672	22,052	9.4298	207,945
31,740	GAL	T14006-1	25.000	5,257	26,306	GAL	19.00414	41.6	1.00672	26,483	7.8520	207,945
Seal No's: 001712, 001716, 001720											LITRES 100,249	
Car No. PPRX 663002											Kilograms: 94610	
26,438	IG	T14006-2	25.750	4,296	22,044	IG	19.24004	47.5	1.00444	22,142	9.4202	208,580
31,750	GAL	T14006-2	25.750	5,159	26,474	GAL	19.24004	47.5	1.00444	26,591	7.8440	208,580
Seal No's: 103381, 103383, 103390											LITRES 100,658	
Car No. PPRX 663003											Kilograms: 94785	
26,438	IG	T14006-3	25.250	4,235	22,089	IG	19.18320	45.8	1.00510	22,203	9.4118	208,966
31,750	GAL	T14006-3	25.250	5,086	26,528	GAL	19.18320	45.8	1.00510	26,664	7.8370	208,966
Seal No's: 084132, 084133, 084134											LITRES 100,934	
Car No. PPRX 663004											Kilograms: 94628	
26,421	IG	T14006-4	25.750	4,275	22,048	IG	19.27401	47.4	1.00448	22,146	9.4202	208,619
31,730	GAL	T14006-4	25.750	5,134	26,478	GAL	19.27401	47.4	1.00448	26,596	7.8440	208,619
Seal No's: 103344, 103350, 103389											LITRES 100,677	
Car No. PPRX 663005											Kilograms: 94180	
26,421	IG	T14006-5	25.750	4,380	21,950	IG	19.11776	48.3	1.00412	22,041	9.4202	207,631
31,730	GAL	T14006-5	25.750	5,260	26,361	GAL	19.11776	48.3	1.00412	26,470	7.8440	207,631
Seal No's: 081316, 081324, 081325											LITRES 100,200	
Car No. PPRX 663006											Kilograms: 94251	
26,429	IG	T14006-6	25.750	4,372	21,959	IG	19.17982	47.5	1.00446	22,058	9.4202	207,788
31,740	GAL	T14006-6	25.750	5,250	26,372	GAL	19.17982	47.5	1.00446	26,490	7.8440	207,788
Seal No's: 070671, 070675, 070797											LITRES 100,276	
Car No. PPRX 663007											Kilograms: 94500	
26,429	IG	T14006-7	25.750	4,313	22,018	IG	19.17834	47.4	1.00449	22,116	9.4202	208,337
31,740	GAL	T14006-7	25.750	5,180	26,442	GAL	19.17834	47.4	1.00449	26,560	7.8440	208,337
Seal No's: 070791, 070792, 070793											LITRES 100,541	
Car No. PPRX 663008											Kilograms: 94379	
26,421	IG	T14006-8	25.750	4,333	21,989	IG	19.11294	47.3	1.00451	22,088	9.4202	208,070
31,730	GAL	T14006-8	25.750	5,204	26,407	GAL	19.11294	47.3	1.00451	26,526	7.8440	208,070
Seal No's: 070794, 070795, 070796											LITRES 100,412	
Car No. PPRX 663009											Kilograms: 94165	
26,429	IG	T14006-9	25.000	4,414	21,869	IG	19.16574	41.7	1.00670	22,015	9.4298	207,599
31,740	GAL	T14006-9	25.000	5,301	26,263	GAL	19.16574	41.7	1.00670	26,439	7.8520	207,599
Seal No's: 001703, 001719, 080638											LITRES 100,083	
Car No. PPRX 663010											Kilograms: 94689	
26,421	IG	T14006-10	25.250	4,241	22,084	IG	19.05691	47.7	1.00437	22,180	9.4118	208,754
31,730	GAL	T14006-10	25.250	5,093	26,521	GAL	19.05691	47.7	1.00437	26,637	7.8370	208,754
Seal No's: 101124, 101128, 101130											LITRES 100,832	

Product: PETROLEUM CRUDE OIL											
Car Capacity Gallons	Outage			Loaded							CERTIFIED OR TARIFF WEIGHT (SUBJECT TO CORRECTION)
	TABLE	INS	GAL@VC	GALLONS	UM	GRAVITY	TEMP	VCF	GALS@60	LBS/GAL	
Car No. PPRX 663011											Kilograms: 94785
26,429 IG	T14006-11	25.250	4,227	22,104	IG	19.20728	47.5	1.00447	22,203	9.4118	208,966
31,740 GAL	T14006-11	25.250	5,076	26,546	GAL	19.20728	47.5	1.00447	26,664	7.8370	208,966
Seal No's: 084135, 084137, 084139											LITRES 100,934
Car No. PPRX 663012											Kilograms: 94599
26,413 IG	T14006-12	25.500	4,273	22,040	IG	19.11728	47.4	1.00450	22,139	9.4202	208,556
31,720 GAL	T14006-12	25.500	5,132	26,469	GAL	19.11728	47.4	1.00450	26,588	7.8440	208,556
Seal No's: 081312, 081327, 081330											LITRES 100,647
Car No. PPRX 663013											Kilograms: 94760
26,438 IG	T14006-13	25.000	4,283	21,994	IG	19.21533	40.2	1.00728	22,154	9.4298	208,910
31,750 GAL	T14006-13	25.000	5,144	26,414	GAL	19.21533	40.2	1.00728	26,606	7.8520	208,910
Seal No's: 001711, 001714, 001715											LITRES 100,715
Car No. PPRX 663015											Kilograms: 94450
26,438 IG	T14006-15	25.750	4,333	22,008	IG	19.04859	47.7	1.00437	22,104	9.4202	208,227
31,750 GAL	T14006-15	25.750	5,204	26,430	GAL	19.04859	47.7	1.00437	26,546	7.8440	208,227
Seal No's: 070799, 081311, 081314											LITRES 100,488
Car No. PPRX 663016											Kilograms: 94519
26,413 IG	T14006-16	25.250	4,272	22,046	IG	19.06618	48.0	1.00427	22,140	9.4118	208,378
31,720 GAL	T14006-16	25.250	5,131	26,476	GAL	19.06618	48.0	1.00427	26,589	7.8370	208,378
Seal No's: 101095, 101096, 101129											LITRES 100,650
Car No. PPRX 663017											Kilograms: 94283
26,413 IG	T14006-17	25.500	4,347	21,968	IG	19.06476	47.5	1.00444	22,065	9.4202	207,858
31,720 GAL	T14006-17	25.500	5,221	26,382	GAL	19.06476	47.5	1.00444	26,499	7.8440	207,858
Seal No's: 103342, 103346, 103348											LITRES 100,310
Car No. PPRX 663018											Kilograms: 94344
26,421 IG	T14006-18	25.750	4,342	21,981	IG	19.03019	47.5	1.00446	22,079	9.4202	207,992
31,730 GAL	T14006-18	25.750	5,214	26,398	GAL	19.03019	47.5	1.00446	26,516	7.8440	207,992
Seal No's: 081317, 081318, 081319											LITRES 100,374
Car No. PPRX 663020											Kilograms: 94771
26,438 IG	T14006-20	25.250	4,238	22,103	IG	19.16577	47.9	1.00431	22,199	9.4118	208,934
31,750 GAL	T14006-20	25.250	5,090	26,545	GAL	19.16577	47.9	1.00431	26,660	7.8370	208,934
Seal No's: 082306, 082310, 101126											LITRES 100,919
Car No. PPRX 663021											Kilograms: 94686
26,421 IG	T14006-21	25.250	4,242	22,089	IG	19.10957	48.3	1.00414	22,179	9.4118	208,746
31,730 GAL	T14006-21	25.250	5,094	26,527	GAL	19.10957	48.3	1.00414	26,636	7.8370	208,746
Seal No's: 101097, 101099, 101123											LITRES 100,828
Car No. PPRX 663022											Kilograms: 94611
26,413 IG	T14006-22	25.750	4,265	22,044	IG	19.14521	46.9	1.00470	22,148	9.4178	208,582
31,720 GAL	T14006-22	25.750	5,122	26,474	GAL	19.14521	46.9	1.00470	26,598	7.8420	208,582
Seal No's: 103038, 103039, 103040											LITRES 100,684

Product: PETROLEUM CRUDE OIL											
Car Capacity Gallons	Outage			Loaded							CERTIFIED OR TARIFF WEIGHT (SUBJECT TO CORRECTION)
	TABLE	INS	GAL@VC	GALLONS	UM	GRAVITY	TEMP	VCF	GALS@60	LBS/GAL	
Car No. PPRX 663023											Kilograms: 94586
26,396 IG	T14006-23	25.250	4,240	22,063	IG	19.36726	48.0	1.00425	22,156	9.4118	208,527
31,700 GAL	T14006-23	25.250	5,092	26,496	GAL	19.36726	48.0	1.00425	26,608	7.8370	208,527
Seal No's: 101091, 101092, 101100											LITRES 100,722
Car No. PPRX 663024											Kilograms: 94689
26,421 IG	T14006-24	25.250	4,241	22,074	IG	19.29712	46.5	1.00486	22,180	9.4118	208,754
31,730 GAL	T14006-24	25.250	5,093	26,509	GAL	19.29712	46.5	1.00486	26,637	7.8370	208,754
Seal No's: 101121, 101125, 101127											LITRES 100,832
Car No. PPRX 663025											Kilograms: 94451
26,421 IG	T14006-25	25.500	4,297	22,035	IG	19.00738	48.6	1.00402	22,124	9.4118	208,229
31,730 GAL	T14006-25	25.500	5,160	26,463	GAL	19.00738	48.6	1.00402	26,570	7.8370	208,229
Seal No's: 101093, 101094, 101098											LITRES 100,578
Car No. PPRX 663027											Kilograms: 94212
26,429 IG	T14006-27	25.000	4,403	21,883	IG	19.12238	42.1	1.00653	22,026	9.4298	207,701
31,740 GAL	T14006-27	25.000	5,288	26,280	GAL	19.12238	42.1	1.00653	26,452	7.8520	207,701
Seal No's: 001717, 001718, 080645											LITRES 100,132
Car No. PPRX 663030											Kilograms: 94165
26,421 IG	T14006-30	25.750	4,383	21,940	IG	19.32052	47.5	1.00446	22,038	9.4202	207,599
31,730 GAL	T14006-30	25.750	5,264	26,349	GAL	19.32052	47.5	1.00446	26,466	7.8440	207,599
Seal No's: 070674, 070678, 070680											LITRES 100,185
Car No. PPRX 663032											Kilograms: 94326
26,446 IG	T14006-32	26.250	4,365	21,962	IG	19.28824	45.0	1.00542	22,081	9.4178	207,954
31,760 GAL	T14006-32	26.250	5,242	26,375	GAL	19.28824	45.0	1.00542	26,518	7.8420	207,954
Seal No's: 084181, 084182, 084187											LITRES 100,382
Car No. PPRX 663033											Kilograms: 94389
26,421 IG	T14006-33	25.750	4,331	21,994	IG	19.06463	47.7	1.00439	22,090	9.4202	208,093
31,730 GAL	T14006-33	25.750	5,201	26,413	GAL	19.06463	47.7	1.00439	26,529	7.8440	208,093
Seal No's: 103384, 103385, 103387											LITRES 100,423
Car No. PPRX 663034											Kilograms: 94286
26,429 IG	T14006-34	25.750	4,363	21,968	IG	18.95815	47.4	1.00447	22,066	9.4202	207,866
31,740 GAL	T14006-34	25.750	5,240	26,382	GAL	18.95815	47.4	1.00447	26,500	7.8440	207,866
Seal No's: 103361, 103366, 103370											LITRES 100,313
Car No. PPRX 663035											Kilograms: 94689
26,421 IG	T14006-35	25.750	4,255	22,062	IG	19.11210	46.8	1.00473	22,166	9.4178	208,754
31,730 GAL	T14006-35	25.750	5,110	26,495	GAL	19.11210	46.8	1.00473	26,620	7.8420	208,754
Seal No's: 084185, 103033, 103034											LITRES 100,768
Car No. PPRX 663036											Kilograms: 94373
26,446 IG	T14006-36	26.250	4,354	21,987	IG	19.10946	46.8	1.00474	22,092	9.4178	208,056
31,760 GAL	T14006-36	26.250	5,229	26,405	GAL	19.10946	46.8	1.00474	26,531	7.8420	208,056
Seal No's: 084184, 084188, 084190											LITRES 100,431

Shippers BOL Number
000512HP / 0

Product: PETROLEUM CRUDE OIL												
Car Capacity Gallons	Outage			Loaded							LBS/GAL	CERTIFIED OR TARIFF WEIGHT (SUBJECT TO CORRECTION)
	TABLE	INS	GAL@VC	GALLONS	UM	GRAVITY	TEMP	VCF	GALS@60			
Car No. PPRX 663037										Kilograms:	94832	
26,446	IG	T14006-37	25.750	4,247	22,093	IG	19.17949	46.7	1.00478	22,199	9.4178	209,068
31,760	GAL	T14006-37	25.750	5,100	26,533	GAL	19.17949	46.7	1.00478	26,660	7.8420	209,068
Seal No's: 084183, 084186, 084189										LITRES	100,919	
Car No. PPRX 663038										Kilograms:	94642	
26,413	IG	T14006-38	25.500	4,263	22,053	IG	19.10434	47.7	1.00439	22,149	9.4202	208,650
31,720	GAL	T14006-38	25.500	5,120	26,484	GAL	19.10434	47.7	1.00439	26,600	7.8440	208,650
Seal No's: 103364, 103365, 103369										LITRES	100,692	
Car No. PPRX 663048										Kilograms:	94468	
26,429	IG	T14006-48	25.750	4,321	22,008	IG	18.98185	47.1	1.00459	22,108	9.4202	208,266
31,740	GAL	T14006-48	25.750	5,189	26,430	GAL	18.98185	47.1	1.00459	26,551	7.8440	208,266
Seal No's: 103363, 103367, 103377										LITRES	100,506	
Car No. PPRX 663134										Kilograms:	94913	
26,413	IG	T14006-134	25.000	4,180	22,113	IG	19.01280	45.0	1.00542	22,233	9.4118	209,248
31,720	GAL	T14006-134	25.000	5,020	26,556	GAL	19.01280	45.0	1.00542	26,700	7.8370	209,248
Seal No's: 080716, 080717, 080720										LITRES	101,070	
Car No. PPRX 663151										Kilograms:	94781	
26,429	IG	T14006-151	25.000	4,270	22,031	IG	19.22760	43.9	1.00583	22,159	9.4298	208,957
31,740	GAL	T14006-151	25.000	5,128	26,458	GAL	19.22760	43.9	1.00583	26,612	7.8520	208,957
Seal No's: 080636, 080640, 080649										LITRES	100,737	
Car No. PPRX 663159										Kilograms:	94671	
26,413	IG	T14006-159	25.000	4,279	22,026	IG	19.05087	46.4	1.00487	22,133	9.4298	208,714
31,720	GAL	T14006-159	25.000	5,139	26,452	GAL	19.05087	46.4	1.00487	26,581	7.8520	208,714
Seal No's: 101154, 101158, 101159										LITRES	100,620	
Car No. PPRX 663161										Kilograms:	94824	
26,421	IG	T14006-161	24.750	4,252	22,054	IG	19.36545	45.6	1.00519	22,169	9.4298	209,052
31,730	GAL	T14006-161	24.750	5,106	26,486	GAL	19.36545	45.6	1.00519	26,624	7.8520	209,052
Seal No's: 094423, 101681, 101682										LITRES	100,783	
Car No. PPRX 663173										Kilograms:	94450	
26,421	IG	T14006-173	25.250	4,339	21,956	IG	19.29791	44.1	1.00576	22,082	9.4298	208,227
31,730	GAL	T14006-173	25.250	5,211	26,368	GAL	19.29791	44.1	1.00576	26,519	7.8520	208,227
Seal No's: 080633, 080647, 080650										LITRES	100,385	
Car No. PPRX 663175										Kilograms:	94183	
26,446	IG	T14006-175	25.750	4,404	21,947	IG	19.08566	47.8	1.00432	22,042	9.4202	207,639
31,760	GAL	T14006-175	25.750	5,289	26,357	GAL	19.08566	47.8	1.00432	26,471	7.8440	207,639
Seal No's: 070672, 070784, 070800										LITRES	100,204	
Car No. PPRX 663179										Kilograms:	94539	
26,429	IG	T14006-179	25.250	4,327	21,996	IG	19.07939	46.5	1.00484	22,103	9.4298	208,423
31,740	GAL	T14006-179	25.250	5,196	26,416	GAL	19.07939	46.5	1.00484	26,544	7.8520	208,423
Seal No's: 094635, 094642, 094645										LITRES	100,480	

Shippers BOL Number
000512HP / O

Product: PETROLEUM CRUDE OIL												
Car Capacity Gallons	Outage			Loaded							CERTIFIED OR TARIFF WEIGHT (SUBJECT TO CORRECTION)	
	TABLE	INS	GAL@VC	GALLONS	UM	GRAVITY	TEMP	VCF	GALS@60	LBS/GAL		
Car No. PPRX 663181											Kilograms: 94183	
26,413	IG	T14006-181	24.750	4,393	21,895	IG	18.92838	44.3	1.00568	22,019	9.4298	207,638
31,720	GAL	T14006-181	24.750	5,276	26,295	GAL	18.92838	44.3	1.00568	26,444	7.8520	207,638
Seal No's: 080642, 080643, 080646											LITRES 100,101	
Car No. PPRX 663183											Kilograms: 94162	
26,438	IG	T14006-183	25.250	4,423	21,909	IG	19.11025	46.6	1.00481	22,014	9.4298	207,591
31,750	GAL	T14006-183	25.250	5,312	26,311	GAL	19.11025	46.6	1.00481	26,438	7.8520	207,591
Seal No's: 094631, 094633, 094638											LITRES 100,079	
Car No. PPRX 663187											Kilograms: 94807	
26,438	IG	T14006-187	25.250	4,230	22,093	IG	18.89003	45.6	1.00515	22,208	9.4118	209,013
31,750	GAL	T14006-187	25.250	5,080	26,533	GAL	18.89003	45.6	1.00515	26,670	7.8370	209,013
Seal No's: 080712, 080713, 080719											LITRES 100,957	
Car No. PPRX 663217											Kilograms: 94814	
26,438	IG	T14006-217	25.250	4,228	22,093	IG	19.28297	45.4	1.00528	22,209	9.4118	209,028
31,750	GAL	T14006-217	25.250	5,078	26,532	GAL	19.28297	45.4	1.00528	26,672	7.8370	209,028
Seal No's: 080711, 080714, 080715											LITRES 100,965	
Car No. PPRX 663224											Kilograms: 94781	
26,413	IG	T14006-224	24.750	4,253	22,053	IG	19.25294	46.5	1.00486	22,159	9.4298	208,957
31,720	GAL	T14006-224	24.750	5,108	26,484	GAL	19.25294	46.5	1.00486	26,612	7.8520	208,957
Seal No's: 094634, 094647, 094648											LITRES 100,737	
Car No. PPRX 663233											Kilograms: 94728	
26,429	IG	T14006-233	25.750	4,260	22,073	IG	18.95735	47.8	1.00434	22,169	9.4202	208,839
31,740	GAL	T14006-233	25.750	5,116	26,508	GAL	18.95735	47.8	1.00434	26,624	7.8440	208,839
Seal No's: 103345, 103347, 103349											LITRES 100,783	
Car No. PPRX 663240											Kilograms: 94946	
26,421	IG	T14006-240	24.750	4,223	22,097	IG	18.71095	47.2	1.00455	22,198	9.4298	209,319
31,730	GAL	T14006-240	24.750	5,072	26,537	GAL	18.71095	47.2	1.00455	26,658	7.8520	209,319
Seal No's: 094644, 094650, 101151											LITRES 100,912	
Car No. PPRX 663242											Kilograms: 94308	
26,404	IG	T14006-242	25.000	4,356	21,949	IG	19.05226	47.2	1.00456	22,049	9.4298	207,913
31,710	GAL	T14006-242	25.000	5,231	26,359	GAL	19.05226	47.2	1.00456	26,479	7.8520	207,913
Seal No's: 101683, 101686, 101688											LITRES 100,234	
Car No. PPRX 663243											Kilograms: 94746	
26,429	IG	T14006-243	25.750	4,250	22,074	IG	18.97014	46.6	1.00478	22,179	9.4178	208,880
31,740	GAL	T14006-243	25.750	5,104	26,510	GAL	18.97014	46.6	1.00478	26,636	7.8420	208,880
Seal No's: 001073, 001077, 001079											LITRES 100,828	
Car No. PPRX 663244											Kilograms: 94725	
26,429	IG	T14006-244	24.750	4,283	21,997	IG	19.03169	41.5	1.00675	22,146	9.4298	208,832
31,740	GAL	T14006-244	24.750	5,144	26,417	GAL	19.03169	41.5	1.00675	26,596	7.8520	208,832
Seal No's: 101684, 101685, 101687											LITRES 100,677	

Shippers BOL Number
000512HP / 0

Product: PETROLEUM CRUDE OIL											Shippers BOL Number 000512HP / 0	
Car Capacity Gallons	Outage			Loaded							CERTIFIED OR TARIFF WEIGHT (SUBJECT TO CORRECTION)	
	TABLE	INS	GAL@VC	GALLONS	UM	GRAVITY	TEMP	VCF	GALS@60	LBS/GAL		
Car No. PPRX 663249											Kilograms: 94037	
26,429	IG	T14006-249	26.000	4,422	21,913	IG	19.08671	47.7	1.00436	22,008	9.4202	207,317
31,740	GAL	T14006-249	26.000	5,310	26,316	GAL	19.08671	47.7	1.00436	26,430	7.8440	207,317
Seal No's: 081354, 081355, 081358											LITRES: 100,048	
Car No. PPRX 663252											Kilograms: 94785	
26,446	IG	T14006-252	25.250	4,243	22,092	IG	18.95944	46.1	1.00499	22,203	9.4118	208,966
31,760	GAL	T14006-252	25.250	5,096	26,531	GAL	18.95944	46.1	1.00499	26,664	7.8370	208,966
Seal No's: 001037, 001171, 001175											LITRES: 100,934	
Car No. PPRX 663254											Kilograms: 94279	
26,446	IG	T14006-254	25.750	4,382	21,966	IG	19.14248	47.5	1.00444	22,064	9.4202	207,850
31,760	GAL	T14006-254	25.750	5,262	26,380	GAL	19.14248	47.5	1.00444	26,498	7.8440	207,850
Seal No's: 070677, 070679, 070786											LITRES: 100,306	
Car No. PPRX 663256											Kilograms: 94482	
26,421	IG	T14006-256	25.250	4,332	21,963	IG	19.03852	44.1	1.00576	22,089	9.4298	208,298
31,730	GAL	T14006-256	25.250	5,202	26,376	GAL	19.03852	44.1	1.00576	26,528	7.8520	208,298
Seal No's: 080641, 080644, 080648											LITRES: 100,419	
Car No. PPRX 663261											Kilograms: 94721	
26,429	IG	T14006-261	25.250	4,242	22,073	IG	19.23242	45.6	1.00520	22,188	9.4118	208,825
31,740	GAL	T14006-261	25.250	5,094	26,508	GAL	19.23242	45.6	1.00520	26,646	7.8370	208,825
Seal No's: 001184, 001187, 001190											LITRES: 100,866	
Car No. PPRX 663264											Kilograms: 94418	
26,429	IG	T14006-264	26.000	4,332	21,997	IG	18.97221	47.2	1.00456	22,097	9.4202	208,156
31,740	GAL	T14006-264	26.000	5,203	26,417	GAL	18.97221	47.2	1.00456	26,537	7.8440	208,156
Seal No's: 103372, 103376, 103379											LITRES: 100,453	
Car No. PPRX 663268											Kilograms: 94614	
26,429	IG	T14006-268	25.000	4,309	22,014	IG	19.17127	46.5	1.00485	22,120	9.4298	208,588
31,740	GAL	T14006-268	25.000	5,175	26,437	GAL	19.17127	46.5	1.00485	26,565	7.8520	208,588
Seal No's: 094422, 094426, 094429											LITRES: 100,559	
Car No. PPRX 663277											Kilograms: 94735	
26,463	IG	T14006-277	25.500	4,272	22,079	IG	19.07061	45.9	1.00506	22,191	9.4118	208,856
31,780	GAL	T14006-277	25.500	5,130	26,516	GAL	19.07061	45.9	1.00506	26,650	7.8370	208,856
Seal No's: 001186, 001188, 001189											LITRES: 100,881	
Car No. PPRX 663279											Kilograms: 94482	
26,446	IG	T14006-279	25.250	4,357	21,984	IG	19.17902	46.6	1.00480	22,089	9.4298	208,298
31,760	GAL	T14006-279	25.250	5,232	26,401	GAL	19.17902	46.6	1.00480	26,528	7.8520	208,298
Seal No's: 094424, 094425, 094427											LITRES: 100,419	
Car No. PPRX 663282											Kilograms: 94436	
26,413	IG	T14006-282	24.750	4,334	21,952	IG	18.99075	44.1	1.00577	22,079	9.4298	208,196
31,720	GAL	T14006-282	24.750	5,205	26,363	GAL	18.99075	44.1	1.00577	26,515	7.8520	208,196
Seal No's: 080634, 080635, 080639											LITRES: 100,370	



Shippers BOL Number
000512HP / 0

Product: PETROLEUM CRUDE OIL												
Car Capacity Gallons	Outage			Loaded							CERTIFIED OR TARIFF WEIGHT (SUBJECT TO CORRECTION)	
	TABLE	INS	GAL@VC	GALLONS	UM	GRAVITY	TEMP	VCF	GALS@60	LBS/GAL		
Car No. PPRX 663296											Kilograms: 94358	
26,429	IG	T14006-296	25.500	4,347	21,979	IG	19.10312	46.8	1.00471	22,083	9.4202	208,023
31,740	GAL	T14006-296	25.500	5,220	26,396	GAL	19.10312	46.8	1.00471	26,520	7.8440	208,023
Seal No's: 100632, 100634, 100636											LITRES 100,389	
Car No. PPRX 663297											Kilograms: 94021	
26,446	IG	T14006-297	26.000	4,437	21,908	IG	19.33517	47.0	1.00466	22,009	9.4178	207,280
31,760	GAL	T14006-297	26.000	5,328	26,310	GAL	19.33517	47.0	1.00466	26,432	7.8420	207,280
Seal No's: 082269, 103031, 103037											LITRES 100,056	
Car No. PPRX 663298											Kilograms: 94379	
26,438	IG	T14006-298	25.750	4,350	21,985	IG	19.12021	47.0	1.00464	22,088	9.4202	208,070
31,750	GAL	T14006-298	25.750	5,224	26,403	GAL	19.12021	47.0	1.00464	26,526	7.8440	208,070
Seal No's: 081313, 081315, 081320											LITRES 100,412	
Car No. PPRX 663301											Kilograms: 94565	
26,438	IG	T14006-301	25.750	4,301	22,036	IG	19.08923	47.1	1.00458	22,137	9.4178	208,480
31,750	GAL	T14006-301	25.750	5,165	26,464	GAL	19.08923	47.1	1.00458	26,585	7.8420	208,480
Seal No's: 103032, 103035, 103036											LITRES 100,635	
Car No. PPRX 663302											Kilograms: 94469	
26,446	IG	T14006-302	25.750	4,332	22,011	IG	19.18010	46.9	1.00469	22,114	9.4178	208,268
31,760	GAL	T14006-302	25.750	5,202	26,434	GAL	19.18010	46.9	1.00469	26,558	7.8420	208,268
Seal No's: 097934, 097938, 097940											LITRES 100,533	
Car No. PPRX 663305											Kilograms: 94910	
26,471	IG	T14006-305	25.000	4,282	22,081	IG	18.89319	46.3	1.00490	22,189	9.4298	209,240
31,790	GAL	T14006-305	25.000	5,142	26,518	GAL	18.89319	46.3	1.00490	26,648	7.8520	209,240
Seal No's: 101131, 101137, 101140											LITRES 100,874	
Car No. PPRX 663306											Kilograms: 94674	
26,429	IG	T14006-306	25.750	4,272	22,054	IG	19.15600	46.9	1.00468	22,157	9.4202	208,721
31,740	GAL	T14006-306	25.750	5,131	26,485	GAL	19.15600	46.9	1.00468	26,609	7.8440	208,721
Seal No's: 103374, 103378, 103380											LITRES 100,726	
Car No. PPRX 663307											Kilograms: 94507	
26,463	IG	T14006-307	25.750	4,345	22,019	IG	19.10779	47.4	1.00448	22,118	9.4202	208,352
31,780	GAL	T14006-307	25.750	5,218	26,443	GAL	19.10779	47.4	1.00448	26,562	7.8440	208,352
Seal No's: 070673, 070676, 070787											LITRES 100,548	
Car No. PPRX 663308											Kilograms: 94874	
26,454	IG	T14006-308	25.250	4,231	22,111	IG	18.99363	45.9	1.00508	22,223	9.4118	209,162
31,770	GAL	T14006-308	25.250	5,081	26,554	GAL	18.99363	45.9	1.00508	26,689	7.8370	209,162
Seal No's: 001035, 001040, 001176											LITRES 101,029	
Car No. PPRX 663310											Kilograms: 94333	
26,463	IG	T14006-310	25.750	4,386	21,964	IG	19.29022	45.7	1.00516	22,077	9.4202	207,968
31,780	GAL	T14006-310	25.750	5,267	26,377	GAL	19.29022	45.7	1.00516	26,513	7.8440	207,968
Seal No's: 070781, 070782, 070783											LITRES 100,363	

Product: PETROLEUM CRUDE OIL												
Car Capacity Gallons	Outage			Loaded							CERTIFIED OR TARIFF WEIGHT (SUBJECT TO CORRECTION)	
	TABLE	INS	GAL@VC	GALLONS	UM	GRAVITY	TEMP	VCF	GALS@60	LBS/GAL		
Car No. PPRX 663312											Kilograms: 94329	
26,413	IG	T14006-312	25.500	4,337	21,973	IG	19.27446	46.9	1.00469	22,076	9.4202	207,960
31,720	GAL	T14006-312	25.500	5,208	26,388	GAL	19.27446	46.9	1.00469	26,512	7.8440	207,960
Seal No's: 081353, 081359, 081360											LITRES 100,359	
Car No. PPRX 663313											Kilograms: 94768	
26,429	IG	T14006-313	25.750	4,245	22,080	IG	19.13500	46.8	1.00471	22,184	9.4178	208,927
31,740	GAL	T14006-313	25.750	5,098	26,517	GAL	19.13500	46.8	1.00471	26,642	7.8420	208,927
Seal No's: 097931, 097936, 098287											LITRES 100,851	
Car No. PPRX 663325											Kilograms: 94532	
26,429	IG	T14006-325	25.000	4,328	21,999	IG	18.95020	47.0	1.00463	22,101	9.4298	208,408
31,740	GAL	T14006-325	25.000	5,198	26,419	GAL	18.95020	47.0	1.00463	26,542	7.8520	208,408
Seal No's: 101135, 101136, 101157											LITRES 100,472	
Car No. PPRX 663327											Kilograms: 94849	
26,463	IG	T14006-327	25.250	4,245	22,105	IG	19.15153	45.9	1.00506	22,218	9.4118	209,107
31,780	GAL	T14006-327	25.250	5,098	26,547	GAL	19.15153	45.9	1.00506	26,682	7.8370	209,107
Seal No's: 001033, 001038, 001180											LITRES 101,002	
Car No. PPRX 663331											Kilograms: 94903	
26,463	IG	T14006-331	25.750	4,247	22,110	IG	19.01498	46.6	1.00480	22,216	9.4178	209,225
31,780	GAL	T14006-331	25.750	5,100	26,553	GAL	19.01498	46.6	1.00480	26,680	7.8420	209,225
Seal No's: 001072, 001074, 001075											LITRES 100,995	
Car No. PPRX 663333											Kilograms: 94486	
26,438	IG	T14006-333	25.000	4,347	21,958	IG	19.05366	43.4	1.00603	22,090	9.4298	208,306
31,750	GAL	T14006-333	25.000	5,221	26,370	GAL	19.05366	43.4	1.00603	26,529	7.8520	208,306
Seal No's: 001701, 001702, 001704											LITRES 100,423	
Car No. PPRX 663334											Kilograms: 94450	
26,446	IG	T14006-334	25.000	4,364	21,953	IG	19.26093	43.7	1.00591	22,082	9.4298	208,227
31,760	GAL	T14006-334	25.000	5,241	26,364	GAL	19.26093	43.7	1.00591	26,519	7.8520	208,227
Seal No's: 080631, 080632, 080637											LITRES 100,385	
Car No. PPRX 663337											Kilograms: 94867	
26,454	IG	T14006-337	25.000	4,275	22,044	IG	18.85418	43.0	1.00616	22,179	9.4298	209,146
31,770	GAL	T14006-337	25.000	5,134	26,473	GAL	18.85418	43.0	1.00616	26,636	7.8520	209,146
Seal No's: 001707, 001709, 001710											LITRES 100,828	
Car No. PPRX 663338											Kilograms: 94885	
26,454	IG	T14006-338	25.000	4,271	22,073	IG	19.13132	46.1	1.00501	22,183	9.4298	209,185
31,770	GAL	T14006-338	25.000	5,129	26,508	GAL	19.13132	46.1	1.00501	26,641	7.8520	209,185
Seal No's: 094706, 101134, 101152											LITRES 100,847	
Car No. PPRX 663339											Kilograms: 94443	
26,463	IG	T14006-339	25.750	4,360	22,006	IG	18.91662	47.7	1.00437	22,103	9.4202	208,211
31,780	GAL	T14006-339	25.750	5,236	26,428	GAL	18.91662	47.7	1.00437	26,544	7.8440	208,211
Seal No's: 081351, 081356, 081357											LITRES 100,480	



Product: PETROLEUM CRUDE OIL											
Car Capacity Gallons	Outage				Loaded						CERTIFIED OR TARIFF WEIGHT (SUBJECT TO CORRECTION)
	TABLE	INS	GAL@VC	GALLONS	UM	GRAVITY	TEMP	VCF	GALS@60	LBS/GAL	
Car No. PPRX 663341											Kilograms: 94508
26,421 IG	T14006-341	26.000	4,297	22,018	IG	19.19284	46.6	1.00480	22,123	9.4178	208,354
31,730 GAL	T14006-341	26.000	5,161	26,442	GAL	19.19284	46.6	1.00480	26,569	7.8420	208,354
Seal No's: 001076, 001084, 084131											LITRES 100,575
Car No. PPRX 663342											Kilograms: 94415
26,454 IG	T14006-342	25.000	4,381	21,934	IG	18.89709	42.5	1.00637	22,074	9.4298	208,149
31,770 GAL	T14006-342	25.000	5,261	26,341	GAL	18.89709	42.5	1.00637	26,509	7.8520	208,149
Seal No's: 001705, 001706, 001708											LITRES 100,347
Car No. PPRX 663343											Kilograms: 94344
26,454 IG	T14006-343	25.750	4,355	21,989	IG	19.01174	45.9	1.00505	22,099	9.4118	207,994
31,770 GAL	T14006-343	25.750	5,230	26,407	GAL	19.01174	45.9	1.00505	26,540	7.8370	207,994
Seal No's: 001174, 001177, 001179											LITRES 100,465
Car No. PPRX 663344											Kilograms: 94579
26,446 IG	T14006-344	26.000	4,306	22,038	IG	19.19581	47.0	1.00464	22,140	9.4178	208,511
31,760 GAL	T14006-344	26.000	5,171	26,466	GAL	19.19581	47.0	1.00464	26,589	7.8420	208,511
Seal No's: 097932, 097933, 097937											LITRES 100,650
Car No. PPRX 663345											Kilograms: 94286
26,454 IG	T14006-345	25.250	4,411	21,896	IG	18.99176	41.6	1.00671	22,044	9.4298	207,866
31,770 GAL	T14006-345	25.250	5,297	26,296	GAL	18.99176	41.6	1.00671	26,473	7.8520	207,866
Seal No's: 001713, 101689, 101690											LITRES 100,211
Car No. PPRX 663347											Kilograms: 94173
26,471 IG	T14006-347	26.000	4,432	21,935	IG	19.21992	46.7	1.00475	22,039	9.4202	207,615
31,790 GAL	T14006-347	26.000	5,322	26,343	GAL	19.21992	46.7	1.00475	26,468	7.8440	207,615
Seal No's: 070785, 100631, 100635											LITRES 100,192
Car No. PPRX 663348											Kilograms: 94076
26,463 IG	T14006-348	26.000	4,446	21,919	IG	19.06979	47.5	1.00445	22,017	9.4202	207,403
31,780 GAL	T14006-348	26.000	5,339	26,323	GAL	19.06979	47.5	1.00445	26,441	7.8440	207,403
Seal No's: 081322, 081329, 081352											LITRES 100,090
Car No. PPRX 663349											Kilograms: 94076
26,438 IG	T14006-349	25.000	4,443	21,889	IG	19.11507	46.6	1.00482	21,994	9.4298	207,403
31,750 GAL	T14006-349	25.000	5,336	26,287	GAL	19.11507	46.6	1.00482	26,414	7.8520	207,403
Seal No's: 094421, 094428, 101132											LITRES 99,988
Car No. PPRX 663350											Kilograms: 94739
26,429 IG	T14006-350	25.250	4,238	22,098	IG	19.10148	48.0	1.00424	22,192	9.4118	208,864
31,740 GAL	T14006-350	25.250	5,089	26,539	GAL	19.10148	48.0	1.00424	26,651	7.8370	208,864
Seal No's: 082301, 082308, 082309											LITRES 100,885
Car No. PPRX 663352											Kilograms: 94375
26,446 IG	T14006-352	25.000	4,382	21,944	IG	18.93808	44.9	1.00546	22,064	9.4298	208,062
31,760 GAL	T14006-352	25.000	5,262	26,354	GAL	18.93808	44.9	1.00546	26,498	7.8520	208,062
Seal No's: 094430, 101138, 101139											LITRES 100,306

Shippers BOL Number
000512HP / 0

Product: PETROLEUM CRUDE OIL											Shippers BOL Number 000512HP / 0	
Car Capacity Gallons	Outage			Loaded							LBS/GAL	CERTIFIED OR TARIFF WEIGHT (SUBJECT TO CORRECTION)
	TABLE	INS	GAL@VC	GALLONS	UM	GRAVITY	TEMP	VCF	GALS@60			
Car No. PPRX 663353											Kilograms: 94515	
26,438	IG	T14006-353	25.500	4,298	22,044	IG	19.15244	47.9	1.00429	22,139	9.4118	208,370
31,750	GAL	T14006-353	25.500	5,162	26,474	GAL	19.15244	47.9	1.00429	26,588	7.8370	208,370
Seal No's: 082302, 082303, 082304											LITRES 100,647	
Car No. PPRX 663354											Kilograms: 94325	
26,454	IG	T14006-354	25.000	4,402	21,951	IG	18.93894	47.0	1.00463	22,053	9.4298	207,952
31,770	GAL	T14006-354	25.000	5,286	26,362	GAL	18.93894	47.0	1.00463	26,484	7.8520	207,952
Seal No's: 101155, 101156, 101160											LITRES 100,253	
Car No. PPRX 663356											Kilograms: 94447	
26,438	IG	T14006-356	26.000	4,328	21,999	IG	19.22134	46.1	1.00499	22,109	9.4178	208,221
31,750	GAL	T14006-356	26.000	5,198	26,420	GAL	19.22134	46.1	1.00499	26,552	7.8420	208,221
Seal No's: 001086, 001089, 001090											LITRES 100,510	
Car No. PPRX 663357											Kilograms: 94608	
26,446	IG	T14006-357	25.750	4,299	22,039	IG	18.99164	46.4	1.00488	22,147	9.4178	208,574
31,760	GAL	T14006-357	25.750	5,163	26,467	GAL	18.99164	46.4	1.00488	26,597	7.8420	208,574
Seal No's: 001071, 001078, 001080											LITRES 100,681	
Car No. PPRX 663358											Kilograms: 94426	
26,454	IG	T14006-358	26.000	4,350	21,996	IG	19.14681	46.3	1.00492	22,104	9.4178	208,174
31,770	GAL	T14006-358	26.000	5,224	26,416	GAL	19.14681	46.3	1.00492	26,546	7.8420	208,174
Seal No's: 001081, 001083, 001087											LITRES 100,488	
Car No. PPRX 663359											Kilograms: 94654	
26,463	IG	T14006-359	26.000	4,305	22,052	IG	19.05561	46.6	1.00481	22,158	9.4178	208,676
31,780	GAL	T14006-359	26.000	5,170	26,483	GAL	19.05561	46.6	1.00481	26,610	7.8420	208,676
Seal No's: 001082, 001085, 001088											LITRES 100,730	
Car No. PPRX 663364											Kilograms: 93895	
26,454	IG	T14006-364	26.000	4,480	21,874	IG	19.05082	47.1	1.00459	21,974	9.4202	207,003
31,770	GAL	T14006-364	26.000	5,380	26,269	GAL	19.05082	47.1	1.00459	26,390	7.8440	207,003
Seal No's: 081321, 081323, 081326											LITRES 99,897	



E



Date: 14-Jan-15

Certificate of Analysis: CA15-00013.001

PLAINS MARKETING LP
333 CLAY ST
STE 1600
HOUSTON
UNITED STATES
77210

The results shown in this test report specifically refer to the sample(s) tested as received unless otherwise stated. All tests have been performed using the latest revision of the methods indicated, unless specifically marked otherwise on the report. Precision parameters apply in the determination of the below results. Users of the data shown on this report should refer to the latest published revisions of ASTM D3244, IP 367 and ISO 4259 and when utilising the test data to determine conformance with any specification or process requirement. With respect to the UOP methods listed in the report below the user is referred to the method and the statement within it specifying that the precision statements were determined using UOP Method 999. This Test Report is issued under the Company's General Conditions of Service (copy available upon request or on the company website at www.sgs.com). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARNING: The sample(s) to which the findings recorded herein (the "Findings") relate was(were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativeness of any goods and strictly relate to the sample(s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted.

CLIENT ORDER NUMBER :	(PO#): BKR-00	SGS ORDER NO.:	3666457
CLIENT ID :	(PO#): BKR-00		
LOCATION :	BAKERSFIELD	PRODUCT DESCRIPTION :	Crude Oil - Cold Lake
SAMPLE SOURCE :	Rail Car	SOURCE ID :	TRAIN ID:OACCA 5
SAMPLE TYPE :	As Submitted	SAMPLED BY :	Client
SAMPLED :	12-Jan-15 08:00	RECEIVED :	12-Jan-15 16:08
ANALYSED :	12-Jan-15 17:38 - 14-Jan-15 09:49	COMPLETED :	14-Jan-15 09:50

PROPERTY	METHOD	RESULT UNITS	
API at 60°F §	ASTM D5002	19.3 °API	
Total Sulfur Content	ASTM D4294	3.11 % (m/m)	
Acid Number (Buffer end-point)	ASTM D664 (Method A)	3.7 mg KOH/g	
Mercaptan Sulfur	UOP 163	87 ppm (m/m)	
Test Temperature	ASTM D5705	60 °C	
Hydrogen Sulphide Content in Vapor	ASTM D5705	10 ppm (v/v)	
Water Content by Coulometric KF	ASTM D4928	0.05 % (v/v)	
Sediment by Extraction	ASTM D473	0 % (V/V)	
Boiling Range Distribution of Samples with Residues by HT GC	ASTM D7169		
Boiling Range Distribution of Samples with Residue by HTGC		SEE --- ATTACHED	
Ni, V and Fe in Crude Oils & Residual Fuels by ICP	ASTM D5708 (Method A)		
Vanadium		20.4 mg/kg	#
Nickel		6.62 mg/kg	#
Ni, V and Fe in Crude Oils and Residual Fuels by ICP	ASTM D5708 (Method B)		
Nickel		10.4 mg/kg	
Vanadium		18.2 mg/kg	#
Organic Chloride	ASTM D4929 (Method B)	<1 mg/kg	
Light Hydrocarbons in Stabilized Crude Oils by GC	ASTM D7900		
Determination of Light Hydrocarbons in Stabilized Crude Oils		SEE --- ATTACHED	
Vapor Pressure VPCR at V/L=4 and 100°F	ASTM D6377	3.37 psi	

§ - Analyte not in published method scope

- Result is outside of test method limits and/or analytical range used in method precision study

AUTHORISED SIGNATORY

Roberto Ibanez
Lab Supervisor

1401201509530000004913

Page 1 of 2

OGC-En_report-2014-08-12_v59i

SGS North America Inc

Oil, Gas & Chemicals Services 20535 Belshaw Avenue, Carson, CA, 90746, U.S.A. Tel: +1-(301)885-5739 Fax: +1-(707)988-3933





Date: 14-Jan-15

Certificate of Analysis: CA15-00013.001

PLAINS MARKETING LP
333 CLAY ST
STE 1600
HOUSTON
UNITED STATES
77210

CLIENT ORDER NUMBER :	(PO#): BKR-00	SGS ORDER NO.:	3666457
CLIENT ID :	(PO#): BKR-00		
LOCATION :	BAKERSFIELD	PRODUCT DESCRIPTION :	Crude Oil - Cold Lake
SAMPLE SOURCE :	Rail Car	SOURCE ID :	TRAIN ID:OACCA 5
SAMPLE TYPE :	As Submitted	SAMPLED BY :	Client
SAMPLED :	12-Jan-15 08:00	RECEIVED :	12-Jan-15 16:08
ANALYSED :	12-Jan-15 17:38 - 14-Jan-15 09:49	COMPLETED :	14-Jan-15 09:50

PROPERTY	METHOD	RESULT UNITS	
Vapor Pressure Correlated to RVP D323	ASTM D6377	3.08 psi	#
Kinematic Viscosity at 60°F	ASTM D445	115.8 mm ² /s	
Reid Vapour Pressure - Procedure A (<26 psi)	ASTM D323	4.00 psi	
** End of Analytical Results **			

- Result is outside of test method limits and/or analytical range used in method precision study

This document is only valid in its entirety and your attention is drawn to the Terms and Conditions on Page 1 of this report

AUTHORISED SIGNATORY

Roberto Ibanez
Lab Supervisor

1401201509530000004913

Page 2 of 2

OGC-En_report-2014-08-12_v59i

SGS North America Inc

Oil, Gas & Chemicals Services 20535 Belshaw Avenue, Carson, CA, 90746, U.S.A. Tel: +1-(301)885-5739 Fax: +1-(707)988-3933

Member of the SGS Group (Société Générale de Surveillance)



F



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT



SEP 23 2014

Glen Mears
Bakersfield Crude Terminal, LLC
19430 Beech Avenue
Shafter, CA 93263

Re: Notice of Issuance of Authority To Construct
Facility Number: S-8165
Project Number: S-1143691

Dear Mr. Mears:

The Air Pollution Control Officer has issued the Authority To Construct permits to Bakersfield Crude Terminal, LLC to four fixed-roof storage tanks and an oil/water separator.

Enclosed are the Authority To Construct and invoice for the engineering evaluation fees pursuant to District Rule 3010. Please remit the amount owed, along with a copy of the attached invoice, before the due date.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. David Torii at (661) 392-5620.

Sincerely,

Arnaud Marjollet
Director of Permit Services


Leonard Scandura, P.E.
Permit Services Manager

AM: dbt

Seyed Sadredin
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: 661-392-5500 FAX: 661-392-5585



AUTHORITY TO CONSTRUCT

PERMIT NO: S-8165-9-0

ISSUANCE DATE: 09/23/2014

LEGAL OWNER OR OPERATOR: BAKERSFIELD CRUDE TERMINAL, LLC
MAILING ADDRESS: P O BOX 4648
HOUSTON, TX 77210-4648

LOCATION: SOUTH LAKE ROAD AND SANITAGO ROAD
TAFT, CA

EQUIPMENT DESCRIPTION:
24 BBL FIXED ROOF SUMP TANK WITH PUMPS AND CONNECTIONS SERVED BY A 200 LB CARBON CANISTER

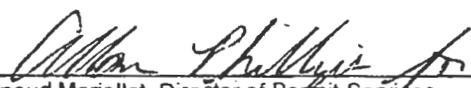
CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in gas-tight condition. The VOC control device shall be a carbon canister system that reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Section 6.4. [District Rule 2201]
3. Tank fluid throughput shall not exceed 3.1 bbl/day. [District Rule 2201]
4. Permittee shall maintain monthly records of average daily fluid throughput. [District Rule 2201]
5. VOC emission from the outlet of the carbon canister shall not exceed 0.3 lb/day. [District Rule 2201]
6. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 2201]
7. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 2201]
8. The tank and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Rayed Sadredin, Executive Director / APCO



Arnaud Marjollet, Director of Permit Services
S-8165-9-0 Sep 23 2014 12:57PM - TORID : Joint Inspection NOT Required

A leak-free condition is a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument that is calibrated with methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 2201]

10. The carbon canisters removed from the system shall be sealed vapor tight. [District Rule 2201]
11. Sampling port adequate for use of an FID, PID or other District-approved VOC detection device shall be provided for effluent gas stream of the carbon canister. [District Rule 1081]
12. Permittee shall measure and record the VOC concentration at the outlet of the carbon canister at least once each week. [District Rule 2201]
13. If the VOC concentration at the outlet of the carbon canister exceeds 10,000 ppmv, carbon canister shall be replaced with a fresh carbon canister. [District Rule 2201]
14. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 2201]



AUTHORITY TO CONSTRUCT

PERMIT NO: S-8165-10-0

ISSUANCE DATE: 09/23/2014

LEGAL OWNER OR OPERATOR: BAKERSFIELD CRUDE TERMINAL, LLC
MAILING ADDRESS: P O BOX 4648
HOUSTON, TX 77210-4648

LOCATION: SOUTH LAKE ROAD AND SANITAGO ROAD
TAFT, CA

EQUIPMENT DESCRIPTION:
24 BBL FIXED ROOF SUMP TANK WITH PUMPS AND CONNECTIONS SERVED BY A 200 LB CARBON CANISTER

CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in gas-tight condition. The VOC control device shall be a carbon canister system the reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Section 6.4. [District Rule 2201]
3. Tank fluid throughput shall not exceed 3.1 bbl/day. [District Rule 2201]
4. Permittee shall maintain monthly records of average daily fluid throughput. [District Rule 2201]
5. VOC emission from the outlet of the carbon canister shall not exceed 0.3 lb/day. [District Rule 2201]
6. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 2201]
7. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 2201]
8. The tank and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO



Arnaud Marjollet, Director of Permit Services
S-8165-10-0 Sep 23 2014 12:58PM - TORID Joint Inspection NOT Required

- ^ A leak-free condition is a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument that is calibrated with methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 2201]
10. The carbon canisters removed from the system shall be sealed vapor tight. [District Rule 2201]
 11. Sampling port adequate for use of an FID, PID or other District-approved VOC detection device shall be provided for effluent gas stream of the carbon canister. [District Rule 1081]
 12. Permittee shall measure and record the VOC concentration at the outlet of the carbon canister at least once each week. [District Rule 2201]
 13. If the VOC concentration at the outlet of the carbon canister exceeds 10,000 ppmv, carbon canister shall be replaced with a fresh carbon canister. [District Rule 2201]
 14. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 2201]



AUTHORITY TO CONSTRUCT

PERMIT NO: S-8165-11-0

ISSUANCE DATE: 09/23/2014

LEGAL OWNER OR OPERATOR: BAKERSFIELD CRUDE TERMINAL, LLC
MAILING ADDRESS: P O BOX 4648
HOUSTON, TX 77210-4648

LOCATION: SOUTH LAKE ROAD AND SANITAGO ROAD
TAFT, CA

EQUIPMENT DESCRIPTION:
24 BBL FIXED ROOF SUMP TANK WITH PUMPS AND CONNECTIONS SERVED BY A 200 LB CARBON CANISTER

CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in gas-tight condition. The VOC control device shall be a carbon canister system that reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Section 6.4. [District Rule 2201]
3. Tank fluid throughput shall not exceed 3.1 bbl/day. [District Rule 2201]
4. Permittee shall maintain monthly records of average daily fluid throughput. [District Rule 2201]
5. VOC emission from the outlet of the carbon canister shall not exceed 0.3 lb/day. [District Rule 2201]
6. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 2201]
7. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 2201]
8. The tank and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Muayed Sadredin, Executive Director / APCO


Arnaud Marjollet, Director of Permit Services

S-8165-11-0 Sep 23 2014 12:58PM - TORID Joint Inspection NOT Required

- ^ A leak-free condition is a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument that is calibrated with methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 2201]
10. The carbon canisters removed from the system shall be sealed vapor tight. [District Rule 2201]
 11. Sampling port adequate for use of an FID, PID or other District-approved VOC detection device shall be provided for effluent gas stream of the carbon canister. [District Rule 1081]
 12. Permittee shall measure and record the VOC concentration at the outlet of the carbon canister at least once each week. [District Rule 2201]
 13. If the VOC concentration at the outlet of the carbon canister exceeds 10,000 ppmv, carbon canister shall be replaced with a fresh carbon canister. [District Rule 2201]
 14. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 2201]



AUTHORITY TO CONSTRUCT

PERMIT NO: S-8165-12-0

ISSUANCE DATE: 09/23/2014

LEGAL OWNER OR OPERATOR: BAKERSFIELD CRUDE TERMINAL, LLC
MAILING ADDRESS: P O BOX 4648
HOUSTON, TX 77210-4648

LOCATION: SOUTH LAKE ROAD AND SANITAGO ROAD
TAFT, CA

EQUIPMENT DESCRIPTION:
24 BBL FIXED ROOF SUMP TANK WITH PUMPS AND CONNECTIONS SERVED BY A 200 LB CARBON CANISTER

CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in gas-tight condition. The VOC control device shall be a carbon canister system the reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Section 6.4. [District Rule 2201]
3. Tank fluid throughput shall not exceed 3.1 bbl/day. [District Rule 2201]
4. Permittee shall maintain monthly records of average daily fluid throughput. [District Rule 2201]
5. VOC emission from the outlet of the carbon canister shall not exceed 0.3 lb/day. [District Rule 2201]
6. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 2201]
7. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 2201]
8. The tank and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO


Arnaud Marjollet, Director of Permit Services
S-8165-12-0 Sep 23 2014 12:58PM - TORID Joint Inspection NOT Required

9. A leak-free condition is a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument that is calibrated with methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 2201]
10. The carbon canisters removed from the system shall be sealed vapor tight. [District Rule 2201]
11. Sampling port adequate for use of an FID, PID or other District-approved VOC detection device shall be provided for effluent gas stream of the carbon canister. [District Rule 1081]
12. Permittee shall measure and record the VOC concentration at the outlet of the carbon canister at least once each week. [District Rule 2201]
13. If the VOC concentration at the outlet of the carbon canister exceeds 10,000 ppmv, carbon canister shall be replaced with a fresh carbon canister. [District Rule 2201]
14. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 2201]



AUTHORITY TO CONSTRUCT

PERMIT NO: S-8165-13-0

ISSUANCE DATE: 09/23/2014

LEGAL OWNER OR OPERATOR: BAKERSFIELD CRUDE TERMINAL, LLC
MAILING ADDRESS: P O BOX 4648
HOUSTON, TX 77210-4648

LOCATION: SOUTH LAKE ROAD AND SANITAGO ROAD
TAFT, CA

EQUIPMENT DESCRIPTION:
ONE (1) 20,000 GALLON OIL WATER SEPARATOR WITH PUMPS AND CONNECTIONS SERVED BY A 200 LB CARBON CANISTER

CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
The tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in gas-tight condition. The VOC control device shall be a carbon canister system the reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Section 6.4. [District Rules 2201 and 4623]
3. Tank shall operate at a constant level. [District Rule 2201]
4. Tank fluid throughput shall not exceed 7.0 bbl/day. [District Rule 2201]
5. VOC emission from the outlet of the carbon canister shall not exceed 0.3 lb/day. [District Rule 2201]
6. Permittee shall maintain monthly records of average daily fluid throughput. [District Rule 2201]
7. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623]
8. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]
9. The tank and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623]

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Sayed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services
S-8165-13-0 Sep 23 2014 12:58PM - TORID Joint Inspection NOT Required

10. A leak-free condition is a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument that is calibrated with methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rules 2201 and 4623]
11. The carbon canisters removed from the system shall be sealed vapor tight. [District Rule 2201]
12. Sampling port adequate for use of an FID, PID or other District-approved VOC detection device shall be provided for effluent gas stream of the carbon canister. [District Rule 1081]
13. Permittee shall measure and record the VOC concentration at the outlet of the carbon canister at least once each week. [District Rule 2201]
14. If the VOC concentration at the outlet of the carbon canister exceeds 10,000 ppmv, carbon canister shall be replaced with a fresh carbon canister. [District Rule 2201]
15. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2201 and 4623]



G



Federal Operating Permit Program (40 CFR Part 71)

EMISSION CALCULATIONS (EMISS)

Calculate potential to emit (PTE) for applicability purposes and actual emissions for fee purposes for each emissions unit, control device, or alternative operating scenario identified in section I of form GIS. If form FEE does not need to be submitted with the application, do not calculate actual emissions.

A. Emissions Unit ID _____

B. Identification and Quantification of Emissions

First, list each air pollutant that is either regulated at the unit or present in major amounts, then list any other regulated pollutant (for fee calculation) not already listed. HAP may be simply listed as "HAP." Next, calculate PTE for applicability purposes and actual emissions for fee purposes for each pollutant. Do not calculate PTE for air pollutants listed solely for fee purposes. Include all fugitives for fee purposes. You may round to the nearest tenth of a ton for yearly values or tenth of a pound for hourly values.

Air Pollutants	Emission Rates			CAS No.
	Actual Annual Emissions (tons/yr)	Potential to Emit		
		Hourly (lb/hr)	Annual (tons/yr)	



INSTRUCTIONS FOR EMISS EMISSION CALCULATIONS

Use this form to quantify emissions for each significant emissions unit identified in section I of form **GIS**. This form will help you organize emissions data needed on forms **PTE** and **FEE**. Do not complete this form for any units or activities listed as insignificant on form **IE**. Sources applying for permit revisions only need complete this form for each emissions unit affected by the change.

Section A - The emissions unit ID should be the same as that used in section I of form **GIS**.

Section B - First, list each "regulated air pollutant" that is subject to an applicable requirement or that is emitted in major amounts (at the unit or facility). Please list each HAP separately.

Second, list any "regulated pollutant (for fee calculation)" emitted that has not already been listed. If you will not be submitting form **FEE** with your application, you do not need to perform this or the next step. For fee purposes, fugitive emissions count the same as stack emissions. Any HAP that has not been listed up to this point may be simply listed as "HAP." [There is no need to list carbon monoxide, Class I or II substances under title VI, and pollutants regulated solely by section 112(r) for fee purposes.]

Third, calculate actual emissions of "regulated pollutants (for fee calculation). Actual emissions are calculated based on actual operating hours, production rates, and in-place control equipment, and the types of materials used during the preceding calendar year. If you already have a permit, you should use the compliance methods required by the permit, such as monitoring or source test data, whenever possible; if not possible, you may use other federally recognized procedures.

Most sources will calculate actual emissions for the preceding calendar year. Sources that commenced operation during the preceding calendar year shall estimate emissions for the current calendar year. Certain sources have the option of estimating their actual emissions for the preceding calendar year, instead of calculating them based on actual emissions data, see the instructions for form **FEE** for more on this topic.

Your emission calculations may be based on generally available information rather than new source testing or studies not already required. If you have listed a pollutant but are unable to calculate its actual emissions without conducting new source testing or extensive studies, you may enter "UN" (for "unknown") in the space provided.

You may round to the nearest ton or use greater precision if you believe it will result in a lower fee.

Fourth, calculate PTE for each "regulated air pollutant." For pollutants not specifically regulated at this emission unit, do not calculate PTE in pounds/hour. You may stipulate that the unit alone triggers major source status for this pollutant by entering "MU" in the space provided for annual PTE values. You may stipulate that the unit does not trigger major source status, but that the aggregate facility emissions or another unit triggers major source status by entering "MS" in the space provided for annual PTE values.

Do not calculate PTE values for emissions that are not counted for major source applicability purposes or for emissions listed solely for fee purposes, however, enter "NA" for "not applicable" in the space provided for PTE values for these emissions.

If you are unable to calculate PTE values for air pollutants counted for applicability purposes without conducting new source testing or extensive studies, enter "UN" (for "unknown") in the space provided.

Within applications for permit revisions, PTE should be calculated assuming the proposed change has occurred.



"Potential to emit" is defined as "the maximum capacity of a stationary source to emit any pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation is enforceable by the Administrator."

Enter values for PTE by rounding to the nearest ton in the space for tons/year or to the nearest pound in the space for pounds/hour. If greater precision is needed or desired, do not round these values until you calculate the total on form PTE.

Provide the chemical abstract service number (CAS No.), if available.

END



H



INSPECTION REPORT

Inspector's Name Wolfe, Steve S.		Inspector's Signature			Inspector's ID No. 98069	Report No. 184	Date yy mm dd 2014 12 03						
Railroad/Company Name & Address PLAINS MARKETING CO. 2710 Santiago Road MPWilten@paalp.com Taft CA 93268				R/C C	Division	RR/Co. Representative (Receipt Acknowledged) Name Matt Wilen Title Terminal Manager Email MPWilten@paalp.com Signature _____							
From: City TAFT		Codes 3820	Destination City & County			Codes	From Latitude						
State CA		06	City				From Longitude						
County KERN		C029	County				To Latitude						
Mile Post: From		To	Inspection Point PLAINS CRUDE TERMINAL				To Longitude						
Activity Code:	TCT	TCL	174B	TPLH	172H	ULT							
Units:	80	24	1	1	1	104							
Sub Units:	0	0	1	0	27	0							
Item	Initials/Milepost	Equipment/Track #	Type/Kind	49 CFR/USC	Defect	Subrule	Speed	Class	Train #/Site	SNFR*	RCL**	# of Occ.***	Activity Code
1										N	N	0	
Description - [** Comment to Railroad/Company **] An inspection was conducted to ensure compliance with the regulations as required by 49 CFR as it pertains to the shipment of hazardous materials. The following areas were checked for compliance. The shipping paper requirements for 197 tank cars of UN1267/PETROLEUM CRUDE OIL/ 3/I. The train placement of tank cars as they are reflected on the CONSIST for the BNSF train consisting of 104 tank cars with the train originating out of Casper, WY. The off loading personnel walked inspectors through the connection and disconnection process. The terminal operators also walked all inspectors through the connection process and the pre and post inspection process for all closures on the top of the tank car.													
Seal Applied			Seal Removed			Hazard Class			UN/NA ID				
Violation Recommended				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Latitude:			Longitude:				
Written Notification to FRA of Remedial Action is:				<input type="checkbox"/> Required <input checked="" type="checkbox"/> Optional		Railroad Action Code		Date(mm/dd/yyyy):		Comments on back?			

Inspector's ID No. 98069	Report No. 184	Report Date 12/3/2014
-----------------------------	-------------------	--------------------------

Item	Initials/Milepost	Equipment/Track #	Type/Kind	49 CFR/ USC	Defect	Subrule	Speed	Class	Train #/Site	SNFR*	RCL**	# of Occ.***	Activity Code
2										N	N	0	

Description - [** Comment to Railroad/Company **]
 Inspections of the tank cars were conducted by both hazmat inspectors and motor, power, and equipment inspectors (MP&E). No defects were noted on the ground inspections or the inspections on the top of the car. MP&E inspector stated that they were pointing out items of concern that they look on a regular inspection to the off loaders that accompanied them on their inspections. None of these areas were of concern on these cars as they are all less than six months old.

Seal Applied	Seal Removed	Hazard Class	UN/NA ID
--------------	--------------	--------------	----------

Violation Recommended	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Latitude:	Longitude:
-----------------------	---	-----------	------------

Written Notification to FRA of Remedial Action is:	<input type="checkbox"/> Required <input checked="" type="checkbox"/> Optional	Railroad Action Code	Date(mm/dd/yyyy):	Comments on back?
--	--	----------------------	-------------------	-------------------

Item	Initials/Milepost	Equipment/Track #	Type/Kind	49 CFR/ USC	Defect	Subrule	Speed	Class	Train #/Site	SNFR*	RCL**	# of Occ.***	Activity Code
3										N	N	0	

Description - [** Comment to Railroad/Company **]
 Several times over the past two days the term "state of the art terminal" has been made regarding the Plains Marketing off loading terminal in Taft, CA. The following items help make that term a reality: 1. There is a vapor return line that recovers all vapors pulled from the tank cars and returned to one of twelve tank cars (3 cars per string of 26) in the strings of car located on each pad. Each string of 26 tank cars has one car at each end and one in the middle are connected to the vapor return line. 2. The off loading system is a completely closed system. A pre-inspection is conducted on the tank car and with the vapor valve in the closed position a vacuum relief valve eductor with a pressure gauge is placed on the connection above the valve. Once it's connected the valve is opened and an orange sleeve is placed over the valve handle to indicate that it is open (this is done to help prevent attempting to off load a tank car without sufficient vacuum relief and imploding a tank).

Seal Applied	Seal Removed	Hazard Class	UN/NA ID
--------------	--------------	--------------	----------

Violation Recommended	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Latitude:	Longitude:
-----------------------	---	-----------	------------

Written Notification to FRA of Remedial Action is:	<input type="checkbox"/> Required <input checked="" type="checkbox"/> Optional	Railroad Action Code	Date(mm/dd/yyyy):	Comments on back?
--	--	----------------------	-------------------	-------------------

Item	Initials/Milepost	Equipment/Track #	Type/Kind	49 CFR/ USC	Defect	Subrule	Speed	Class	Train #/Site	SNFR*	RCL**	# of Occ.***	Activity Code
4										N	N	0	

Description - [** Comment to Railroad/Company **]
 3. All strings of tank cars are connected to fixed air to maintain air through all of the tank cars air break systems. Although all the strings are on supplied air after a set and release when positioning the strings at the rack, four cars on each end have the hand breaks set, and there are two cars on each end of the strings with wheel chocks. 4. The loading rack area was set up with very slight grade from each end towards the middle as an additional safety feature in that with a catastrophic failure of all securement systems the tank cars would only move towards each other to the center of the pad.

Seal Applied	Seal Removed	Hazard Class	UN/NA ID
--------------	--------------	--------------	----------

Violation Recommended	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Latitude:	Longitude:
-----------------------	---	-----------	------------

Written Notification to FRA of Remedial Action is:	<input type="checkbox"/> Required <input checked="" type="checkbox"/> Optional	Railroad Action Code	Date(mm dd yyyy):	Comments on back?
--	--	----------------------	-------------------	-------------------